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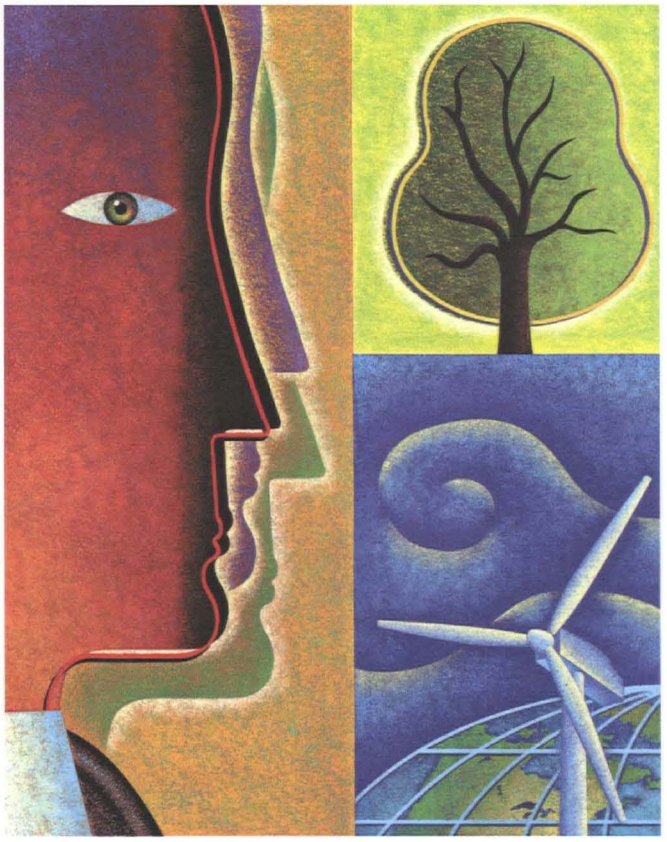
Five-Year Review Report
Calendar Years 2005 through 2009

Dayco Corporation/L.E. Carpenter & Company Superfund Site
Borough of Wharton, Morris County, New Jersey

USEPA ID No. NJ002168748

October 2009



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Prepared For
L.E. Carpenter & Company

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Section 1
Introduction

1.1 Purpose and Scope of the Review

The purpose of five-year review process is to assess and document whether a chosen site remedy remains protective of human health and the environment. The methods, findings, and conclusions evaluated during and determined as a result of the review process are documented in a formal five-year review report. In addition, five-year review reports identify issues found during the review, if any, and present recommendations to address them.

RMT, Inc. (RMT), on behalf of L.E. Carpenter & Company (LEC), has prepared this five-year review report for the Dayco Corporation/L.E. Carpenter & Company Superfund Site (herein referred to as the "Site") located at 170 North Main Street, Borough of Wharton, Morris County, New Jersey (Figure 1). This is the first five-year review performed to evaluate the effectiveness of the approved remedy in addressing all past and current environmental concerns at the Site as identified in the 1994 ROD, and the updated requirements outlined in the 2009 UAO and SOW.

1.2 Authority for Conducting the Five-Year Review

The USEPA Region 2 required this five-year review pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The agency interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

1.3 Other Review Characteristics

USEPA Region 2 conducted this statutory review from December 2004 through December 2009. This report documents the results of the USEPA's review. Supporting data for this review was provided by LEC and their contractor RMT. The triggering action for this review was the USEPA assuming the lead agency role in August 2009.

1.4 Report Organization

The organization of this report generally follows the USEPA's Comprehensive Five-Year Review Guidance (USEPA, 2001). The following sections present the site chronology and background information, remedial actions selected and implemented, the activities completed as part of the five-year review process, a technical assessment, discussion of issues, and recommendations for future activities at the site.

Section 2
Site Chronology

Initial environmental investigations at the Site were performed in response to New Jersey Department of Environmental Protection (NJDEP) sampling activities conducted in 1980 and 1981. These activities resulted in LEC entering into an Administrative Consent Order (ACO) in 1982. The site was added to the National Priorities List (NPL) in 1985. The 1982 ACO was superseded by an additional ACO in 1986, which required LEC to initiate the remedial investigation and a feasibility study (RI/FS) process in accordance with Federal requirements. Following completion of the RI/FS, NJDEP issued a Record of Decision (ROD) for the site in 1994. LEC has investigated, remediated, and monitored the site in compliance with the 1982 and subsequent 1986 ACOs, under the direction of the NJDEP in the lead role with support from the United States Environmental Protection Agency (USEPA), for over twenty-seven years. Significant advancement towards site closure, following the implementation in 2005 of the NJDEP approved 2004 Remedial Action Work Plan for Source Reduction (RA Work Plan), came in the form of residential closure under the 2007 Explanation of Significant Differences (ESD) for "Hot Spot" site soils outlined in the 1994 ROD.

In 2008, USEPA initiated discussions with LEC regarding the transfer of lead agency to USEPA. USEPA assumed role as lead agency on August 6, 2009, directing further cleanup work under the requirements of a new Unilateral Administrative Order (UAO), and Statement of Work (SOW). The new SOW focuses on the three remaining on-site Areas of Concern (AOCs):

- MW19/Hot Spot 1 area (MW19HS1)
- MW-30 area
- Shallow groundwater.

A chronology of events, outlining the relevant events and associated dates from initial discovery through the establishment of the new UAO and associated SOW is presented in Appendix A.

Section 3
Background

3.1 Physical Characteristics

The site is located at 170 North Main Street, Borough of Wharton, Morris County, New Jersey (Figure 1). The site comprises Block 301, Lot 1 and Block 801, Lot 3 on the tax map of the Borough of Wharton, and occupies 14.6 acres of vacant land in a mixed-use industrial, commercial, and residential area. The site is bordered to the south by the Rockaway River; by a vacant lot (Wharton Enterprises) to the east-southeast; and by a former compressed gas facility (Air Products) to the northeast. A residential/commercial area borders the site to the northwest (Ross Street) and North Main Street borders the site to the west. A drainage ditch is located between the Air Products property and the site. A pedestrian foot trail (rails-to-trails area), constructed along the former railroad right-of-way, bisects the site from north to south. During active LEC operations, the site consisted of several buildings and structures, some of which were partially demolished during the early 1990's as part of site decommissioning activities. Buildings 8, 9, 15, 16 and 17 located to the west of the rails-to-trails area remain. Figure 2 is a map of the general site plan that depicts the AOCs along with individual buildings present at the site and other pertinent site features.

3.2 Land and Resource Use

As outlined below, historical land use at the site has been subdivided into two categories (1) mining and forging, and (2) vinyl manufacturing.

3.2.1 Mining and Forging Operations

Morris County and the Wharton area has been an iron mining district since the early 1700's. The earliest known use of the site was as an iron forge, termed the "Washington Forge." The Washington Forge was built in about 1795 and probably used iron ore from deposits in and around the Wharton area. Economically viable iron deposits were discovered at the site, subsequently site operations changed from forging to underground iron mining. According to a New Jersey Department of Labor publication (NJDOL, 1989), the Washington Forge Mine and West Mount Pleasant Mine are located "in the LEC lot." The NJDOL report states that the Washington Forge Mine opened in 1868 with the construction of two inclined shafts 20 feet apart on the grounds of the old forge.

The mine was worked until 1875 when it was closed because of the difficulty in handling groundwater seepage into the mine (Bayley, 1910). The mine reportedly opened again in 1879 after a drainage tunnel to the Orchard mine was completed. The Orchard mine was located south across the Rockaway River from the LEC site. The Washington Forge mine was permanently abandoned in 1881. The West Mt. Pleasant Mine connects with the Washington Forge Mine with an inclined access shaft located about 170 feet northeast of the southern-most Washington Forge mineshaft. The iron forge and mining history above shows that transportation of iron ores from various locations in Morris County onto the LEC property occurred over a period of at least 86 years (1795–1881). Much of the fill materials found on-site was derived from these iron mining operations.

3.2.2 Vinyl Manufacturing

The LEC facility was involved in the production of vinyl wall coverings from 1943 to 1987. The making of vinyl wall coverings involves several manufacturing processes that were carried out in the various buildings comprising the site. The first step in the process is referred to as lamination. Lamination involves the bonding of fabric to the vinyl film using a plastisol adhesive in conjunction with heat and pressure. The fabric/film laminate is then coated with a plastisol compound in order to texturize the material in preparation for printing. The printing process involves the application of decorative print patterns and/or protective topcoat finishes. When printing is completed, the product is inspected and packaged for shipment to the consumer.

The manufacturing process involved the generation of liquid waste solvents including xylene and methyl ethyl ketone, waste pigments, and the generation of condensate from fume condensers. Additionally, airborne particulate matter was collected via a dust collector. Non-contact cooling water was discharged into the Rockaway River under a New Jersey Pollution Discharge Elimination System Permit. From 1963 until 1970 LEC disposed of its wastes, including a polyvinyl chloride (PVC) waste material into an unlined on-site impoundment. The facility was originally heated by coal, and later converted first to #6 fuel oil and subsequently to natural gas.

Former vinyl manufacturing operations west of the rails-to-trails area including raw material storage, drum storage and printing occurred in Building 9. The lamination process was performed in Building 8 located directly to the east of Building 9.

Active manufacturing of vinyl wall coverings ceased at the site in 1987. Since that time the portion of the site east of the pedestrian trail (former railroad crossing) has been inactive except for remedial, investigative, and monitoring related activities. Access is currently restricted to the area east of the pedestrian trail by a locked gate and an 8-foot

high chain-link fence. Some of the buildings west of the pedestrian trail have been subleased as commercial or retail space.

3.2.3 Current Use

No manufacturing operations currently occur at the Site. The eastern portion of the Site (east of the rails to trails path) is vacant grassland. A number of buildings remain west of the rails to trails path, however; all are vacant with the exception of a small leased space as outlined above.

3.3 Remaining Areas of Concern and Associated History

The following three (3) areas of concern (AOCs) remain at the site as outlined in the UAO and associated SOW.

3.3.1 MW-19/Hot Spot 1 Area of Concern (AOC)

The 1986 ACO defines the Site as Block 301, Lot 1 and Block 801, Lot 3 within the Borough of Wharton, New Jersey. The MW19HS1 area is located within Block 301, Lot 1, in the immediately vicinity of Building 9 in the northwest corner of the Site. This AOC is associated with two former 10,000-gallon underground storage tanks (UST E-3 and UST E-4 and associated piping), which reportedly contained waste methyl ethyl ketone (MEK) and pigments, and MEK respectively. The MW19HS1 AOC has been under investigation, remediation, and monitoring since impact was discovered following the removal of the two underground storage tanks (USTs) in 1990.

A summary of investigative and remedial actions related to the MW19HS1 AOC are presented in Subsection 4.2.1 of this report.

3.3.2 MW-30 Area of Concern (AOC)

The MW-30 area is located east of the rails-to-trails. This AOC is associated contamination resulting from historical disposal of waste material at the site. The manufacturing process involved the generation of liquid waste solvents including xylene and methyl ethyl ketone, waste pigments, and the generation of condensate from fume condensers. Additionally, airborne particulate matter was collected via a dust collector. Non-contact cooling water was discharged into the Rockaway River under a New Jersey Pollution Discharge Elimination System Permit. From 1963 until 1970 LEC disposed of its wastes, including a polyvinyl chloride (PVC) waste material into an unlined on-site impoundment. Active manufacturing of vinyl wall coverings ceased at the site in 1987.

A summary of investigative and remedial actions related to the MW-30 AOC are presented in Subsection 4.2.2 of this report.

3.3.3 Shallow Groundwater Area of Concern (AOC)

The shallow groundwater AOC encompasses the shallow groundwater impacted above applicable New Jersey groundwater quality criteria across the entire Site. This AOC is associated with contamination from both the MW19HS1 and MW-30 AOCs.

A summary of activities related to the Shallow Groundwater AOC are presented in Subsection 4.2.3 of this report.

3.4 Initial Response

Initial environmental investigations at the site were performed in response to sampling activities performed by the NJDEP in 1980 and 1981. Sampling results indicated the presence of volatile organic compounds, base neutral compounds, metals and polychlorinated biphenyls (PCBs). In addition, NJDEP observed immiscible chemical compounds floating on the groundwater table. In response to the findings indicated from sampling efforts, LEC entering into an ACO in 1982. The site was added to the NPL in 1985. The 1982 ACO was superseded by an additional ACO in 1986, which required LEC to initiate the remedial investigation and a feasibility study (RI/FS) process.

RI/FS investigations were performed on behalf of LEC by Roy F. Weston, Inc. (WESTON) and GeoEngineering Inc (GEI) from 1986 to 1992. In April 1994 NJDEP issued a Superfund ROD for the LEC site. The ROD summarizes the results of the RI/FS, the baseline risk assessment, and outlined feasible remedial alternatives.

Prior to the issuance of the ROD, LEC implemented several remedial programs that addressed some sources of contamination discovered at the site. In 1982, LEC removed approximately 4,000 cubic yards of sludge and soil from a former surface impoundment; excavated and removed starch drying beds; instituted a groundwater monitoring program in 1984; and operated a passive recovery system for the floating compounds on the groundwater table. In 1989, an extensive asbestos removal was completed in former Buildings 12, 13 and 14. These buildings were razed in January 1992. All underground and inactive aboveground storage tanks were decommissioned and removed from the facility in 1990 and 1991 pursuant to NJAC 58:10A.

3.5 Basis for Taking Action

As originally documented in the 1984 ROD, the basis for taking action, resources affected, and results of risk assessments and the primary health threats at the site are described in the following sections.

3.5.1 Soil

To facilitate remedial investigations, the site was divided into three areas of study based upon former operations, specifically Area I, Area II, and Area III.

Area I was bounded by former Buildings 12, 13, and 14 and extends northeast along the railroad Right-of-Way (ROW), east across the site to include the drainage ditch and which is part of the Air Products property, across to the adjacent property approximately 500 feet north east into the Wharton Enterprises property to encompass the abandoned sewer line, and along the Rockaway River to the steel penstock. Shallow soil samples were collected in approximately 26 locations. Deep soil samples were collected from a depth immediately above groundwater (2 to 8 feet below ground surface (bgs)) at 63 locations.

Shallow soils indicated levels of bis (2-ethyl-hexyl) phthalate (DEHP) at concentrations up to 15,000 ppm. Three surface soil samples collected at the Wharton Enterprises property indicated levels of PCBs up to 45 ppm. Metals, specifically antimony and lead, were detected at the southeast perimeter of former Building 13 and south of monitor well MW-9 at concentrations up to 413 ppm and 2230 ppm respectively.

Analysis of deep soil samples indicate levels of DEHP in concentrations up to 30,000 ppm in the area extending from former Buildings 13 and 14 in the west to the terminus of the abandoned sewer line in the east, and from the drainage ditch in the north to the Rockaway River in the south. VOCs, namely xylene at levels up to 460 ppm, and ethylbenzene up to 43 ppm were also detected. Lead and antimony were detected at concentrations of 765 ppm and 423 ppm respectively.

Area II encompassed the western edge of Building 15 to the western edge of former Buildings 13 and 14 and the northern edge of Building 15 to the Rockaway River. A total of nine (9) shallow soil samples and four (4) deep (directly above the water table) were collected. Results indicate no contamination above the NJ soil cleanup criteria with the exception of one soil sample which indicated the presence of lead at a concentration of 2230 ppm.

Area III encompassed Buildings 2, 8 and 9, which border Ross Street and the Washington Forge Pond. A total of 18 shallow and 21 deep soil samples were collected. Area III deep soils investigation indicated elevated levels of base neutrals (BNs), mainly DEHP, at concentrations at 6,302 ppm west of Building 8. Shallow soil sampling results indicated concentrations of PCBs from non-detect (ND) to 2.9 ppm in the starch drying bed area at the northern portion of the site. Elevated levels of antimony were found at a concentration of 828 ppm adjacent to the loading dock at Building 9.

3.5.2 Groundwater

Results of historical groundwater investigations at the site determined that the extent of contamination is located in Areas I and II and restricted to the shallow aquifer which flows in a northeasterly direction, towards the eastern drainage ditch. Groundwater contamination historically existed in both a floating product (which was captured and reduced using first a passive recovery system and then a more aggressive extraction system) and dissolved phase and has migrated onto the neighboring property, Wharton Enterprises. The predominant volatile organic chemicals are xylene at levels up to 120,000 ppb, and ethylbenzene at levels up to 26,000 ppb. The predominant base neutral is DEHP in concentrations from ND to 62,000 ppb. Metals, such as arsenic and antimony were detected in some of the groundwater samples at concentrations up to an estimated concentration of 21.3 ppb and 540 ppb respectively.

3.5.3 Surface Water and Sediments

As part of the initial Remedial Investigation (RI), surface water and sediment samples were taken to determine possible site impacts on the Rockaway River and sediments located adjacent to the river and the eastern (Air Products) drainage ditch.

3.5.3.1 Eastern (Air Products) Drainage Ditch

The eastern drainage ditch borders the L. E. Carpenter property on the north eastern portion of the property. The standing water located within the ditch eventually leads into the Rockaway River or percolates into groundwater during periods of low water table. Sediment sample results indicate detectable levels of total base neutrals and metals. The predominant BN was DEHP found in concentrations from ND to 520 ppm. The predominant metals were arsenic at concentrations up to 25.7 ppm, chromium at concentrations up to 34.7 ppm, lead at concentrations up to 503 ppm, mercury at concentration up to 21 ppm, and zinc at concentrations up to 336 ppm. Surface water samples from the

eastern drainage channel indicated elevated levels of VOCs. The predominant VOC was xylene at a detected concentration of 44 ppb.

3.5.3.2 Rockaway River

The Rockaway River borders the site from the south western portion up through the eastern portion. Sediment sampling results indicate elevated levels of total base neutrals and metals in samples on the eastern portion of the site. The predominant BN was DEHP, found in concentrations from 1.6 ppm to 76 ppm. The predominant metals were antimony at concentrations up to 718 ppm, copper at concentrations up to 711 ppm and lead at concentration up to 339 ppm. Surface water samples indicated volatile organics at trace levels, below the Surface Water Quality Standards.

3.5.4 Summary of Site Risk

Based upon the results of the initial RI, a baseline risk assessment was conducted to estimate the risks associated with current and future site conditions. The baseline risk assessment estimates the potential human health and ecological risk which could result from the contamination at the site if no remedial action were taken. Site risks are expressed in exponential terms when estimating the cancer risk. Excess lifetime cancer risks are determined by multiplying the intake level with the cancer potency factor. These risks are probabilities that are generally expressed in scientific notation (*e.g.*, 1x10-6 or 1E-6). An excess lifetime cancer risk of 1x10-6 indicates that, as a plausible upper bound, an individual has a one in one million chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site.

Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ) (or the ratio of the estimated intake derived from the contaminant concentration in a given medium to the contaminant's reference dose). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the Hazard Index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media.

Cancer potency factors (CPFs) have been developed by USEPA's Carcinogenic Assessment Group for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. CPFs, which are expressed in units of (mg/kg-day)-1, are multiplied by the estimated intake of a potential carcinogen, in mg/kg-day, to

provide an upper-bound estimate of the excess lifetime cancer risk associated with exposure at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the CPF. Use of this approach makes underestimation of the actual cancer risk highly unlikely. Cancer potency factors are derived from the results of human epidemiological studies or chronic animal bioassays to which animal-to-human extrapolation and uncertainty factors have been applied.

Reference doses (RfDs) have been developed by USEPA for indicating the potential for adverse health effects from exposure to chemicals exhibiting noncarcinogenic effects. RfDs, which are expressed in units of mg/kg-day, are estimates of lifetime daily exposure levels for humans, including sensitive individuals, are not likely to be without an appreciable risk of adverse health effects. Estimated intakes of chemicals from environmental media (*e.g.*, the amount of a chemical ingested from contaminated drinking water) can be compared to the RfD. RfDs are derived from human epidemiological studies or animal studies to which uncertainty factors have been applied (*e.g.*, to account for the use of animal data to predict effects on humans). These uncertainty factors help ensure that the RfDs will not underestimate the potential for adverse noncarcinogenic effects to occur.

3.5.5 Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a conservative estimate of reasonable maximum exposure scenario: Hazard Identification– identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration. Exposure Assessment--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (*e.g.*, drinking contaminated well-water) by which humans are potentially exposed. Toxicity Assessment-- determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). Risk Characterization– summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (*e.g.*, one-in-a-million excess cancer risk) assessment of site-related risks.

The baseline risk assessment selected site related contaminants of concern based on frequency of detection, toxicity and comparison to background levels. These contaminants included DEHP, antimony, PCBs, methylene chloride, benzene, ethylbenzene, polynuclear aromatic hydrocarbons (PAHs), chromium (hexavalent), 1,1-dichloroethane, 1,1 -dichloroethene, tetrachloroethene, tricholoroethene, toluene,

xylene, arsenic, lead, nickel. All of the above contaminants, except lead, antimony, ethylbenzene, xylene, and nickel are known to cause cancer in laboratory animals and are suspected to be human carcinogens. The chlorinated solvents such as 1,1,-dichloroethane, 1,1-dichloroethene, tetrachloroethene, tricholoroethene, are considered to be off-site related from the Air Products property and are above groundwater quality standards.

The baseline risk assessment evaluated the health effects which could result from exposure to contamination if no action is taken to remediate sources of contamination as a result of:

- the ingestion, inhalation and skin contact with surface soil;
- ingestion, inhalation and skin contact with groundwater
- incidental ingestion and skin contact with stream sediments;
- incidental ingestion and skin contact with surface water; and
- the consumption of contaminated animals (fish) from the Rockaway River.

Groundwater is not currently used as a potable source at or within a 1 mile radius of the site. Therefore, human health risks associated with ingestion, inhalation and skin contact with contaminated groundwater represents the hypothetical future use by a resident living on or directly adjacent to the site and using the groundwater as a potable source.

3.5.6 Summary of Health Risks

Through a quantitative assessment of exposure pathways for the contaminants of concern, specific health risk levels were calculated to enable an evaluation of potential health risks for human receptors. The risk of cancer from exposure to a chemical is described in terms of the probability that an individual exposed for an entire lifetime (70) years will develop cancer. The carcinogenic risk, then, is a function of the estimated average daily intake over a lifetime and the cancer slope factor (SF) for the chemical of concern. Under the present use scenario, workers were assumed to spend 25 years at a job on site; therefore, exposure duration of 25/70 years was used. In the future use scenario for resident exposures, carcinogenic risk was calculated based on the assumption that the resident is spending 30 years in one house, located within the site boundary. This represents 6 years of exposure as a child and 24 years exposure as an adult, therefore, exposure durations of 6/70 years and 24/70 years were used to calculate child and adult carcinogenic risk, respectively. Exposure duration considered in the child wader/swimmer scenario was based on a 6 month exposure per year over 6 years.

Thus exposure durations of 6/12 months and 6/70 years were used. The quantitative health risk evaluation identified the following potential health risk for each media:

3.5.6.1 Soil

A cancer risk of 8.2 x 10-4 was established for an on-site employee; a cancer risk of 2.6 x 10-5 for a trespasser; and a cancer risk of 1.9 x 10-3 for a hypothetical future resident who is exposed to soil via incidental ingestion, inhalation and skin contact. The Hazard Index (HI) which reflects non carcinogenic effects for a human receptor was estimated to be 11 for an on-site employee, 2.1 for a trespasser, and 79 for a future resident.

3.5.6.2 Groundwater

A cancer risk was established for a hypothetical future resident for the ingestion, inhalation, and skin contact with groundwater from the shallow, intermediate and deep zones who uses well water as a sole potable water source over a lifetime. The risks calculated are 4 X 10-4; 1.3 x 10-4; 4.0 x 10-4; for shallow, intermediate and deep groundwater respectively. The Hazard Index which reflects non-carcinogenic effects for the hypothetical future resident which ingests, inhales or has dermal contact with the groundwater, was estimated to be 413 for shallow groundwater, 4.4 for intermediate groundwater and 6.2 for deep groundwater. The carcinogenic and non carcinogenic risk for both intermediate and deep groundwater have been determined to be an over estimation of the true conditions of the site because DEHP was only found to exceed the Groundwater Quality Standards in one well in each respective aquifer.

In the intermediate groundwater, DEHP and arsenic exceeded the 10-6 carcinogenic risk levels and exceeded a HI of 1.0. DEHP was detected in one well (MW-12i at 77 ppb) above the Groundwater Quality Standard. Arsenic was detected in 1 of 14 samples below the Groundwater Quality Standard.

In the deep groundwater, DEHP and 1,2-dichloroethane (1,2-DCA) exceeded carcinogenic risk levels and/or a HI of 1.0. Each compound was detected in only 1 of 10 samples. 1,2-DCA was detected as an estimated value and is below the Groundwater Quality Standard. The DEHP concentration has only been reported in one deep well (MW-11d at levels of ND, 3600 ppb and 820 ppb) in the area were groundwater contamination is the highest. Since DEHP has only been detected at levels which exceed the Groundwater Quality Standard in one

well, deep groundwater does not warrant remediation, unless further studies conclude otherwise.

3.5.6.3 River Sediments

A cancer risk of 7.9 x 10-6 was established for a wader/swimmer that incidentally ingests river sediments or through skin contact. The Hazard Index which reflects non-carcinogenic effects for a human receptor was estimated to be 0.32. An assessment of the Air Products drainage ditch determined that the ditch is inaccessible to the trespasser and too shallow to be used for wading and swimming. The potential risks due to exposure to these sediments are negligible. Thus the sediment samples taken at the drainage ditch were not included in this evaluation. Any potential contamination from the sediments will be captured by the proposed groundwater recovery system.

3.5.6.4 River Surface Water and Fish Ingestion

A total carcinogenic risk of 2.1 x 10-7 was established for dermal contact of river surface water. A carcinogenic risk of 5 x 10-8 was established for the incidental-ingestion of river water by waders and swimmers The Hazard Index which reflects non-carcinogenic effects for a human receptor was 0.013.

A total carcinogenic risk of 6.3 x 10-4 for consumption of fish (by both child and adult) was developed. The Hazard Index which reflects non-carcinogenic effects for a human receptor was estimated to be 1.6 (child). However, arsenic was the only identified carcinogenic substance present in surface water. Arsenic was detected in two of four of the surface water samples from the Rockaway River at an estimated value. These estimated (J) values were used in the baseline risk assessment. The risk estimate is based on consumption of a large amount (54 g/day) of fish caught from the river. It was further assumed that consumption occurred daily over a 30-year period. This approach results in a conservative overestimation of risk. Based on available information and the conservative evaluation, control of fish consumption does not appear to be warranted.

3.5.6.5 Conclusion

The initial calculated health risks represented a reasonable maximum exposure, which represented a summation of the chemical-specific risks associated with each medium being evaluated. USEPA has established a carcinogenic risk range for cleanup of contaminated sites of 1 x 10-4 to 1 x 10-6 excess cancer risk

and a Hazard Index greater than 1.0 for non-carcinogenic risks. N.J.P.L. 1993 c139 requires that any proposed remedy must meet the cleanup criteria of 1 x 10-6 for each contaminant and a Hazard Index greater than 1.0 for non-carcinogenic risks. The more conservative 1 x 10-6 is used for achieving final remediation.

Actual or threatened releases of hazardous substances from this site, initially, if not addressed by remedial actions, had the potential to present a current or potential threat to public health, welfare or the environment.

Based on the scenarios presented, the contaminants initially identified in soil and shallow groundwater exceeded the acceptable risk established by NJDEP of 1 x 10-6 and the USEPA target risk range of 1 x 10-4 to 1 x 10-6 for carcinogenic risk and the Hazard Index of 1.0. Other scenarios that exceeded the hazard index; fish consumption, intermediate and deep groundwater exposure, did not indicate a need for remediation based on NJDEP evaluation.

Estimated risk levels presented in the Risk Assessment were used to identify the primary soil contaminants. Initially, potential risk due to exposure to soil contaminants resulted from ingestion of, inhalation of, or dermal contact with the soil. Exposure via each of these potential pathways would be eliminated if direct contact with the soil was prevented. The historical indoor operations of the tenants at the site and any probable future use scenarios did not create a significant risk of direct soil contact by on-site workers, and the site is fenced to prevent trespassing.

If contact with the contaminated soil is not precluded, specific locations on site would have to be remediated. Hypothetical future residential use (using 95% limit concentrations) resulted in estimated carcinogenic risks exceeding 1x10-6 or HI exceeding 1.0 for DEHP, Aroclor 1254, methylene chloride, benzene, ethylbenzene, five PAHs, antimony, and chromium (assuming hexavalent). Ninety percent of the carcinogenic risk was attributed to DEHP, which was found in approximately 90% of the soil samples collected.

However, based on the historical industrial use of the site, non residential use scenarios are more appropriate for estimating potential risks and identifying soil areas requiring remediation. To ensure nonresidential use of the site in the future, an environmental use restriction will be imposed. As discussed below,

not all contaminants need to be addressed as part of the selected remedy herein.

Compliance with the soil cleanup criteria is determined using the following policy: Data generated within an area of concern, excluding any samples from a "clean" buffer zone, is what is being utilized for compliance averaging. An area of concern as first identified may be reduced or expanded based on site investigation sampling events. Only those samples which lie within the modified area of concern can be utilized for compliance averaging. The sample collection shall be from discrete six inch (6") intervals, unless poor sample recovery or other filed logistical problems occur. Samples from different depth intervals are not averaged together to determine compliance with applicable remediation criteria.

Once it has been determined which samples may be utilized for compliance averaging, the following represents NJDEP policy on determining compliance, which incorporates using (1) arithmetic mean and 2) the multiplying factor. The arithmetic mean of the concentration of contaminant in all soil samples from the same depth interval in an area of concern must be less than or equal to the applicable soil cleanup criteria for that contaminant. The multiplying factor is dependent on the soil cleanup criteria. No single sample can exceed the applicable soil cleanup criteria for that contaminant by more that the following factors: 1) if the applicable soil cleanup criteria is ten (10) ppm or less, then the individual soil samples cannot exceed the soil cleanup criteria by more than a factor of ten (10) and cannot exceed a total of fifty (50) ppm; 2) if the applicable soil cleanup criteria is greater than ten (10) ppm but less than or equal to one hundred (100) ppm, then the individual soil samples cannot exceed the soil cleanup criteria by more than a factor of five (5) and cannot exceed a total of two hundred (200) ppm and; 3) if the applicable soil cleanup criteria is greater that one hundred (100) ppm, then the individual soil samples cannot exceed the soil cleanup criteria by more than a factor of two (2).

Methylene chloride may be attributable to some extent to laboratory contamination since it was commonly detected in blank samples. Methylene chloride was also detected in samples of fill material collected from the disposal area. The arithmetic average concentration (15.9 mg/kg) of methylene chloride in soil samples is below the NJ non residential soil cleanup criteria (210 mg/kg) and the maximum concentration (310 mg/kg) did not exceed two times the

standard. Therefore, remediation of methylene chloride contaminated soils is not required.

Benzene was detected in 6 of the 97 soil samples. The arithmetic average concentration of benzene (2.85 mg/kg) was below the NJ nonresidential soil cleanup criteria (13 mg/kg) and the maximum concentration (34 mg/kg) did not exceed the cleanup criteria by a factor of five. Therefore, remediation of benzene in site soils was not required.

For each of the five PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthrene/ benzo(k)fluoranthrene, chrysene, and indeno(1,2,3,c,d)pyrene) the arithmetic average concentration did not exceed the NJ soil cleanup criteria, and the maximum concentration did not exceed the cleanup criteria by a factor of 10.

Toxicity values were available to calculate risks due to lead, which was found in every soil sample collected, including background samples. Several hot spots of lead were detected. Excavation of lead hot spots which exceed the NJ non residential soil cleanup criteria of 600 ppm were conducted.

3.5.7 Ecological Risk Assessment

The purpose of the ecological assessment is to identify and estimate the potential ecological impacts from the release of contaminants on the aquatic resources in the Rockaway River, which is adjacent to the site.

The technical guidance for the performance of this risk assessment comes from several sources, including the Endangerments Assessment Handbook (USEPA, 1986a); Ecological Risk Assessment (Urban and Cook, 1986a); and the Interim Final Risk Assessment Guidance for Superfund: Volume II Environmental Evaluation Manual (USEPA, 1989b).

The ecological risk assessment focused on the potential impacts that site related contamination may have on the aquatic resources of the Rockaway River. The ecological assessment evaluated whether aquatic organisms were adversely exposed to contaminants at concentrations in the sediments based on the National Oceanic and Atmospheric Administration (NOAA) sediment-sorbed contaminant data. Comparison of surface water contaminant concentrations in the Rockaway to the Ambient Water Quality Criteria (AWQC), which are developed to be protective of 95% of all aquatic species, indicated the contaminant levels may potentially pose a threat to aquatic life.

Comparison of contaminant concentration in the Rockaway River to the Surface Water Quality Criteria indicated that levels are below the daily maximum level for each contaminant. In order to supplement the findings of the Baseline Ecological Risk Assessment, LEC conducted a community level biological assessment of the species in the Rockaway River sediments. The objective of the biological assessment was to evaluate whether contaminants detected in river sediments have adversely impacted the benthic macro invertebrate community of the Rockaway River. The assessment concluded that historical operations on-site and current conditions of the site do not appear to be impacting the biological community in the sediment or aquatic species of the Rockaway River.

The results of a site-wide habitat survey and direct field observations were compared to the National Heritage Program data base. The comparison indicated that the on-site habitat does not support threatened or endangered species.

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

Section 4
Remedial Actions

In the USEPA letter to the NJDEP dated April 18, 2008, USEPA outlined their intent to assume the role of lead regulatory agency at the site. In their letter to LEC dated July 30, 2008, USEPA proposed the negotiation of a Draft Administrative Agreement and Order on Consent and associated SOW for LEC to continue financing and conducting site investigative and remedial actions under USEPA direction. During negotiations, both LEC and USEPA agreed that ongoing work under the direction of USEPA would best be managed through a UAO and associated SOW. The new UAO and SOW for the site became effective August 6, 2009.

The remedial actions outlined in this section focus, from and organizational standpoint, on those AOCs that remain (*i.e.*, MW19HS1, MW-30, and shallow groundwater). Implementation of approved ROD remedies is documented in appropriate sections however; due to changes in the overall approach to remediating the site over the past few years, completion of approved ROD remedies are at varying stages. A summary of Site related reports and regulatory correspondence is presented in Appendix B.

4.1 1994 ROD Remedy

RI/FS investigations were performed on behalf of LEC by WESTON and GEI from 1986 to 1992. In April 1994, NJDEP issued a Superfund ROD for the LEC site. The ROD summarizes the results of the RI/FS, the baseline risk assessment, and outlined feasible remedial alternatives. The selected remedy for the site was termed "**Ground Water Treatment with Re-infiltration /Soil Bioremediation – ROD Alternative No. 4**" and included the following components:

- Floating product/groundwater extraction system installation and operation.
- Remediation via biological treatment of extracted groundwater.
- Excavation and consolidation of *bis*(2-ethylhexy)phthalate (DEHP) contaminated soils into soil treatment zone.
- Reinfiltration of a portion of treated groundwater (with added oxygen and nutrients) into the unsaturated soil treatment zone via perforated piping to allow in situ bioremediation contaminated soils.
- Recirculate a larger portion of treated water within the capture zone. Remaining treated groundwater will be discharged into a deeper aquifer in accordance with groundwater discharge criteria.
- Provide vegetative soil cover for the area of groundwater infiltration system.

- Spot excavation and disposal of soils containing polychlorinated biphenyls (PCBs), lead and antimony where levels exceed the soil cleanup levels in locations other than the east soils area designated as the disposal area. Excavation and disposal of disposal area sludge/fill, which may inhibit in situ treatment.
- Environmental use restrictions on property.

4.2 Remedy Implementation

4.2.1 MW19HS1 AOC

As previously mentioned, the 1986 ACO defines the Site as Block 301, Lot 1 and Block 801, Lot 3 within the Borough of Wharton. The MW19HS1 area is located within Block 301, Lot 1 and is immediately west of Building 9 in the northwest corner of the Site. This AOC is associated with two former 10,000-gallon underground storage tanks (UST E-3 and UST E-4 and associated piping), which reportedly contained waste methyl ethyl ketone (MEK) and pigments, and MEK respectively.

4.2.1.1 Soil and Groundwater Investigation and Remediation ~ 1990 through 2005

In 1989, four (4) test pits (TP-63 to TP-66) were excavated around the two USTs. Soil samples were collected from immediately above the water table (between 7 feet and 9 feet bgs) and analyzed for volatile organic compounds (VOCs), base neutral organics (BNO), and priority pollutant metals. No VOCs were detected above quantification limits and residual concentrations of cadmium were detected in TP-63. However, test pit sample results did identify elevated concentrations of DEHP. Subsequently, DEHP was identified as a primary MW19HS1 area contaminant of concern (COC).

USTs E-3 and E-4 and visually impacted soil surrounding the USTs were removed from the Site in 1991. After tank removal activities had been completed, WESTON installed groundwater monitoring well MW-19 in the area immediately adjacent to the excavation to determine whether groundwater had been impacted by previous operations conducted at the facility. The results of the groundwater sampling activities conducted at that time did not identify the presence of VOCs at concentrations above the method detection limits with the exception of 2-Butanone (MEK).

RI activities and subsequent remedial feasibility evaluations continued at the Site until 1992. Following completion of the RRI/FS, NJDEP issued the ROD for

the site in 1994. As outlined in chosen ROD alternative No. 4, "Hot Spot" soil excavation was the chosen remedy for the MW19HS1 AOC. Subsequently, a Workplan for Phase I ROD Implementation was prepared in October 1994 and approved by NJDEP for field implementation.

Based on a review of the report entitled *Second Quarter Progress Report* (WESTON, August 1996), on November 30, 1994, WESTON began the excavation of DEHP impacted soils in the MW19HS1 AOC. Four (4) additional step-out excavation events were conducted on December 6th, 12th, 16th and 20th 1994 as post excavation side wall sampling continued to show elevated concentrations of DEHP above the Site cleanup objective of 100 mg/kg. On December 12, 1994, further excavation south was stopped within 5 ft of monitoring well MW-19 (presumably to avoid destruction of the well), and within 6 ft of Building 9 to a total depth of 9 ft below ground level (bgl) to avoid potentially undermining the building's foundation. The final size of the excavation (as of the December 20, 1994 excavation event) was reportedly 70 feet long, ranged from 16 to 33 feet in width, and had an average depth of 9 feet below grade. Approximately 190 cubic yards of soil were removed from the excavation in 4Q94.

As shown on Figure 2-6 in the 2Q96 Progress Report, one side wall sample collected December 12, 1994 located on the south side of the excavation (HS1-PES-30) showed a DEHP concentration (140 mg/kg) above the cleanup objective of 100 mg/kg. As a result, NJDEP required the collection of additional soil samples to further delineate the distribution of DEHP in soils. In addition, NJDEP also required evaluation of VOCs in soils within the MW19HS1 area. These samples (B-1 through B-6) were collected in May 1996. No VOCs were detected above cleanup objectives in any of the eleven soil sampled analyzed. DEHP was detected in all eleven soil samples; however, samples collected at depths within the vadose (unsaturated) zone were all below the cleanup objective. Deeper samples collected at depths that correspond to below the water table exhibited concentrations above the cleanup objective. Subsequently, the presence of DEHP in soils in the MW19HS1 was related to fluctuations in the water table. No further soil excavation was recommended in the 2Q96 Progress Report, or has been performed to date.

Quarterly groundwater sampling events conducted at MW-19 by WESTON during first and second quarter 1995 identified the presence of BTEX, in addition to MEK, at concentrations exceeding the NJGWQS stipulated in the

ROD. In October 1996, WESTON submitted a delineation plan to the NJDEP to further define the extent of VOC impact to groundwater and further delineate both VOC and DEHP impact to saturated and vadose zone soils in the MW19HS1 AOC. Temporary monitoring wells were installed and sampled and soil samples were collected and analyzed. The results of chemical analyses performed on the groundwater samples collected from the temporary monitoring wells identified the presence of VOCs at concentrations similar to those identified in monitoring well MW-19 in 1995. Additionally, the soil samples collected at both borings B-3 and B-2A indicated DEHP concentrations of 790 mg/kg and 220 mg/kg respectively, exceeding the "Impact to Groundwater Soil Cleanup Objective" of 100 mg/kg outlined in the 1994 ROD.

RMT received approval of an additional MW19HS1 area groundwater delineation plan in January 1998. Subsequently, in February 1998, RMT conducted a subsurface investigation that included the installation and sampling of an additional five (5) groundwater monitoring wells (MW19-1 through MW-19-5). VOC concentrations exceeding the NJGWQS were identified at MW19-1 (center of the plume), MW19-2, MW-19 and at MW19-5. However, when compared to the VOC concentrations found during WESTON's 1996 sampling (BW-1 through BW-9), significant reductions in the concentrations of VOCs were found at monitoring wells MW19 and MW19-2. Since no remedial action had been performed (other than the 1994 soils excavation), it was concluded that natural attenuation of the volatile groundwater contaminants (toluene, ethylbenzene, and xylene) was likely occurring. Groundwater samples were also analyzed for the presence of DEHP. DEHP concentrations exceeding NJGWQS were found at MW19-1 (center of the plume) and at MW19-5 (downgradient well).

The NJDEP letter dated July 15, 1998 required LEC to further delineate the downgradient extent of BTEX and DEHP impact to groundwater in the MW19HS1 AOC and establish a clean zone for both parameters per the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-4.4). RMT, on behalf of LEC, prepared an investigation workplan and submitted it to the NJDEP in November 1998. Per discussions and correspondence with the NJDEP (December 21, 1998), RMT was authorized to perform a groundwater screening investigation utilizing Hydropunch® or other similar methodology.

Off-site Hydropunch® sampling activities were performed on April 21, 1999. Significant difficulties advancing the Hydropunch® tool in the approved off-

site locations were encountered due to the localized geology (large cobbles and boulders) seen at the LEC site. A total of twenty-four (24) advancement attempts were made, four (4) of which (HP-1 through HP-4) penetrated the water table. Results of the Hydropunch® investigation are documented in the report entitled *MW-19/Hot Spot 1 Off-Site Subsurface Investigation* (RMT, June 1999). Analytical results obtained from groundwater samples collected from the four (4) Hydropunch® locations did not reveal concentrations of either BTEX or DEHP above Site specific cleanup criteria. This suggested that no off-site migration of contaminants of concern was occurring.

4.2.1.2 Soil Gas Investigation and Vapor Intrusion

The NJDEP, in their comment letter regarding the 3rd Quarter 2005 Monitoring Report, dated December 27, 2005, voiced their concern over the high level of toluene detected in MW-19-5. In their letter, the NJDEP claimed free product must be present and requested a vapor intrusion evaluation be performed on both the north and south sides of Ross St. in accordance with the new NJDEP Vapor Intrusion Guidance Document dated October 2005, and updated March 2006.

RMT responded to the December 27, 2005 letter in the 4th Quarter Groundwater Monitoring Report dated February 2006. In that response, RMT pointed out that, according to the NJDEP's Vapor Intrusion (VI) Guidance Document (October 2005), a VI evaluation must be completed if a receptor is within 30 feet of a BTEX plume (or within 100 feet if product is present). RMT noted that the site currently has no free product as demonstrated by oil-water interface probes in the most contaminated monitoring wells within the MW19HS1 AOC (*i.e.*, MW-19, MW-19-5, and MW-19-7) none of which have ever generated any measurable free product. The lack of free product is also evidenced by the fact that all individual BTEX concentrations are well below each parameter's solubility limit. However, part of LEC Building 9 (Figure 2) lies within 30 feet of the area with residual soil and groundwater contamination, and therefore a soil vapor intrusion evaluation work plan was submitted in Section 4.4 of the 4th Quarter 2005 Quarterly Groundwater Monitoring Report.

The VI work plan was discussed with and approved by NJDEP during the conference call held on February 22, 2006. NJDEP formalized their approval to proceed with the scope of work outlined in the workplan in an email sent the same day. The soil gas investigation was performed on March 1 and 2, 2006.

This investigation was documented in the report entitled *Soil Gas Investigation in the MW19/Hot Spot 1 Area L.E. Carpenter & Company Borough of Wharton* (RMT, May 2006).

Detectable soil gas constituents were collocated with the dissolved-phase concentrations in groundwater. Based on the groundwater hydraulics, and given Darcy's mathematical law governing groundwater flow, RMT concluded that groundwater with dissolved-phase concentrations of COCs cannot migrate directly north across Ross Street and therefore does not pose a risk to the Ross Street residences. The lack of risk from direct northward groundwater migration is also further substantiated by the lack of detectable COCs in both MW-19D and MW-19-8. However, as described in previous monitoring reports, the current groundwater flow direction suggested that the leading edge of the dissolved COCs in groundwater may have been migrating northeasterly towards an empty lot adjacent to a Ross Street residence. To investigate this potential occurrence, RMT installed an additional well (MW-19-12) in 2Q06 (June 2006), as proposed in the approved PRMP. The well has never exhibited any detectable concentrations of COCs. Based on these and historic data, RMT did not recommend active remediation be considered for this area as natural attenuation processes are very strong, and all data indicates that no risk of exposure exists.

4.2.1.3 2006 Remedial Investigation (RI) and 2007 Remedial Action Selection Report (RASR)

NJDEP provided comments on the May 2006 Soil Gas Investigation in their Notice of Deficiency (NOD) letter dated June 20, 2007. NJDEP was concerned that a residual source of BTEX contamination existed in the MW19HS1 AOC due to the high dissolved phase concentrations remaining in groundwater 15 years after initial source removal actions occurred (*i.e.*, UST and piping removal and remedial excavation), and subsequently required LEC to prepare and submit a Remedial Action Selection Report (RASR) within 30 days following receipt of the letter. RMT responded with a 45-Day extension request for RASR submittal in the letter dated July 17, 2007. The 45-Day RASR extension was approved by NJDEP as outlined in their emailed letter dated July 27, 2007. The RASR was prepared to satisfy the requirements of the June 20, 2007 NJDEP NOD letter, and to document new remedial investigation subsurface data, while meeting the submittal deadline of September 4, 2007.

RMT conducted the remedial investigation between the dates of August 14 and 17, 2007. RMT advanced a total of nine (9) soil borings (SB-07-01 through SB-07-09 (Ref. Figure 19) to further evaluate and define the nature and extent of potential residual contamination acting as a continuing source of shallow groundwater impact.

Building 9 Infrastructure and Interior Boring Locations

Three (3) of the borings (SB-07-01, 02 and 03) were installed within the western interior of Building 9, into the sub slab vadose and saturated zones. These three borings were located with a bias towards the presence of former Building 9 process infrastructure relating to USTs E-3 and E-4. Specifically, two trench drains (Drain #1 and Drain #2) and associated connection piping were identified in the northwestern corner of Building 9 adjacent to the concrete loading dock. Drain #1 is located close to the western wall of Building 9 and formerly connected the drain system to the two exterior USTs. Drain #1 connection piping to the USTs was removed and the Drain #1 discharge hole was sealed with concrete grout during tank removal operations in 1990/1991. Evidence of a 2-foot wide concrete-filled trench (assumed to formerly house piping connecting Drains #1 and #2) was also discovered during Building 9 evaluations. This concrete-filled trench extended approximately 40-feet east from Drain #1 and connected to Drain #2 (Ref. Figure 19 in the Addendum to the RA Workplan).

Exterior Boring Locations

The remaining six (6) boring locations (SB-07-04 through SB-07-09) were installed on the western exterior of Building 9 as shown on Figure 16. Borings SB-07-04 and 06 were installed between the soils remaining east of the former 1994 UST soil excavation and the Building 9 footer. These two boring locations were also biased towards former piping runs connecting Drain #1 to USTs E-3 and E-4. Boring SB-07-08 was also installed between the soils remaining east of the former 1994 UST soil excavation and the Building 9 footer but further south (upgradient) into an area that would define a lateral clean zone based on field screening. Boring SB-07-05, -07, and -09 were installed in areas specific to the 1994 UST soil excavation lateral extents and downgradient monitoring well MW-19-5 monitoring well (Boring 09), within the former UST excavation footprint (Boring SB-07-07), and at the leading edge of the soils remaining east of the former 1994 UST soil excavation and the Building 9 loading dock (downgradient) from the trench drain system located within Building 9.

Geology and Soil Sample Results

RMT compared the soil testing results with the New Jersey Soil Cleanup Criteria. Out of the nine samples, only two, from borings SB-07-04 and SB-07-09, contained DEHP at concentrations above the applicable direct contact soil cleanup criteria. Both of these samples were collected within the saturated zone just below the water table (10 to 14 feet below the ground surface). DEHP was not detectable in groundwater from any of the wells in the MW-19 area, confirming DEHP's known characteristics for strong adsorption onto soil particles and lack of mobility within the saturated zone. Both the DEHP and xylene detected in these two samples as well as the soil sample SB-07-01 (also from the saturated zone near the top of the water table) were at concentrations above the impact to groundwater cleanup criteria (IGWSCC). The data suggest that residual sources exist associated with both the former tanks and fill lines, but also under the building floor apparently related to the existing floor drain, which appears to have been grouted in place based on field observations.

There are significant silt and clay-rich soils in the vadose zone and upper saturated zone under Building 9. Most of the area outside of the building and 2 to 5 feet below the water table consists predominantly of fine to medium grained sand and sand-gravel mixtures. The preponderance of more permeable sand/gravel mixtures several feet below the water table is consistent with the geologic information for the main remediation area on the east side of the recreational trail.

The soil data were used, together with qualitative field observations, photoionization detector (PID) readings, and review of the location of the floor drains and connecting UST pipes to outline the approximate vertical distribution of residual contamination. Results indicate that residual contamination in the vadose zone is limited to the areas of initial release along the piping runs and floor drains. A smear zone at the top of the water table apparently is an ongoing "secondary" source that continues to provide contaminant mass to the aquifer, especially during water table fluctuation events.

4.2.1.4 Current Proposed Remedial Activities

An NJDEP NOD dated October 16, 2008 generally agreed with the remedial approach outlined in the RASR but required the submittal of a Remedial Investigation Workplan (RIW)] as the full vertical and lateral extent of

contamination in this AOC was not yet understood. A RIW proposing further delineation was prepared and submitted for review in November 2008.

No formal comments on the November 2008 RIW were received; however, subsequent conversations with USEPA suggested combining the remedial investigation outlined in the RIW and remediation outlined in the RASR into one mobilization. RMT, on behalf of LEC, submitted a Letter of Intent (LOI) dated January 5, 2009 concurring with this approach. As outlined in the 2009 LOI and the Addendum to the RA Workplan, currently under USEPA review, the MW19HS1 area soil remedy is excavation and restoration, in compliance with the 1994 ROD and 2007 ESD. No *in-situ* chemical oxidation (polishing) as originally proposed in the RASR will occur while the excavation is open as this would require an Amendment to the 1994 ROD. The remediation goal is to maximize the removal of as much residual BTEX and DEHP source mass in the unsaturated soil as is practicable.

As previously mentioned, USEPA took over as lead agency following finalization of the UAO and SOW in September 2009. USEPA required the November 2008 RIW be renamed Remedial Design Report (RD Report) Addendum No. 2. This addendum was submitted in September 2009.

4.2.2 MW-30 AOC

4.2.2.1 On-Site Soil Hot Spots

As outlined in the document entitled *Workplan for Phase I ROD Implementation* (Roy F. Weston, October 1994), a total of eleven (11) "Hot Spots," were identified during the RI/FS process as areas exhibiting either inorganic or organic contaminant concentrations in soil in excess of ROD cleanup criteria. Of the 11 hot spots identified in the RI/FS, eight (8) were located on the eastern half of the site (east of the rails-to-trails path). Four of these (Hot Spots B, C, D, and E or "the waste disposal area" (WDA)) were identified as hotspots associated with inorganic impacted soils. Hot Spots 3, 4, 5 and 6 were associated with soils impacted by organic compounds. As outlined in Table 1-1 of the report entitled *Quarterly Monitoring Report – L. E. Carpenter Site* (Roy F. Weston, April 1995), Hot Spots D, E, 3, 5, and 6 were excavated and closed as part of Phase I Remedial Actions.

4.2.2.2 Inorganic Hot Spots B & C

RMT outlined a scope of work in the document entitled *Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil* (RMT, May 2001). The scope of work outlined in this workplan was specifically designed to (1) fully delineate the horizontal and vertical extent of lead concentrations in the soil and groundwater, (2) determine the potential source(s) of the elevated on-site lead concentrations, and (3) provide data necessary to fill data-gaps that may exist in the WESTON human health risk assessment. This scope of work was approved by NJDEP and USEPA in the NJDEP letter dated August 23, 2001 and subsequently implemented on-site between November 5 and 14, 2001. The results of this investigation were outlined in the document entitled *Nature and Extent of Lead in Soils and Groundwater - Volumes I & II* (RMT, March 2002).

The results of the November 2001 investigation showed that site wide elevated lead concentrations are predominantly a result of historical manufacturing operations, and that lead occurred in two major forms within two distinct types of fill material:

- Lead associated with light- to brightly-colored process waste is likely from a release of potential vinyl stabilizer compounds such as lead phthalate or lead stearate.
- Lead associated with dark-colored forging and mining era fill material is likely from a release of potential vinyl pigmenting compounds, such as lead chromate.

The on-site lead soils that were found to exhibit a concentration of 400 mg/kg (the USEPA residential remedial action goal) or greater were excavated and disposed of off-site as part of the source reduction activities that took place in the first half of 2005 (Ref. to Section 4.1 of the Remedial Action Report (RAR)).

4.2.2.3 Organic Hot Spot 4

Process waste associated with historical operations conducted in former Building 14 was identified during the November 2001 lead investigation. The location and extent of the process waste as shown on Figure 12 of the report entitled *Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy* (RMT, March 2002) encompasses historic Hot Spot 4. In addition, the discovery of the process waste material at the GPC-15 sample location detailed in the report entitled *Hot Spot B and Hot Spot C Subsurface Lead Investigation* (RMT, August 1999) geographically correlates with the historic Hot

Spot 4 location and the location of process waste discovered during the 2001 investigations.

Even though Hot Spot 4 was originally classified in the RI/FS as an organic hot spot, the process waste located in this area on site contains both organic and inorganic constituents. These materials, process waste and surrounding soils (approximately 450 tons) were excavated and disposed of off-site as hazardous waste as part of the source reduction project. The excavation and off-site disposal of this material is outlined in Section 4.2 of the November 2005 Remedial Action Report (RAR).

4.2.2.4 2004 Remedial Action Work Plan (RA Work Plan) and the 2005 Source Reduction Remedial Action

Successful execution of the remedial scope outlined in the 2004 RA Work Plan required the completion of numerous site preparation tasks prior to the initiation of soil excavation activities:

- Numerous monitoring wells, well points, and free product wells (2004 RA Work Plan, Table 7) were abandoned in accordance with N.J.A.C. 7:9D-3.1(g)(2) between the dates of November 29 and December 9, 2004. These activities and associated well abandonment forms were documented in the report entitled Quarterly Monitoring Report – 1st Quarter 2005 (RMT, March 2005).
- Vertical delineation of smear zone [AEC C-1] activities took place in November and December 2004 and was documented in the report entitled Pre-Construction Boring Report (RMT, January 2005).
- Two existing out-building structures identified as treatment buildings used to house the former pneumatic free product extraction system operated by Roy F. Weston (Weston) until 1996 were demolished, site security measures were implemented, and temporary erosion control measures were installed.

The source reduction remedial action took place between January 1, 2005 and June 30, 2005. During this time, the various areas of environmental concern (AEC) identified in the 2004 RAWP were remedied. The remediation goals for the source reduction included the removal of:

- all soils impacted by lead with concentrations greater than 400 ppm
- all process-waste impacted soils with concentrations greater than 400 ppm lead and 600 ppm copper

- all PCB-impacted soils with concentrations greater than 2 ppm
- as much residual xylene, ethylbenzene and DEHP in the soil (saturated and unsaturated) as was practicable

On-site remedial construction activities sequentially removed and managed each AEC based on differing levels of contaminant impact, waste disposal classification, and superposition of the various layers or contaminated zones. These data were derived from the results of previous lead and free-product investigations, the results of the December 2004 preconstruction boring activities, and the results of the November and December 2004 PCB delineation activities.

AEC removal sequencing was limited by the superposition of the various layers or contaminated zones. Each AEC was remediated following the general removal hierarchy outlined below:

1. Lead Impacted Soils – AECs A-1, A-2 and A-3 (January and February 2005, 9,292 tons)
2. Process Waste Areas – AECs B-1 and B-2 (February and March 2005, 450 tons)
3. PCB Impacted Soils – AEC PA (March and April 2005, 2,727 tons)
4. Clean Soils – (February and March 2005)
5. Smear Zone Soils – AEC C-1 (March, April, and May 2005, 34,052 tons)

4.2.2.5 2005 RA Report

Following implementation of the Source Reduction remediation in 2005, a RA Report (RAR) was prepared and submitted to NJDEP and USEPA on November 18, 2005. The RAR was reviewed and approved by USEPA and NJDEP on September 14, 2007.

4.2.2.6 2007 Explanation of Significant Differences (ESD)

An ESD was granted for all of the "hot spot" soils on site, including soils contaminated with lead, PCBs, process waste, and LNAPL free-product within the smear-zone associated with the groundwater table. The exceptions listed in the ESD included the MW19HS1 area, and the component of the ROD which relates to the groundwater portion of the initial ROD remedy.

The ESD was attached to USEPA's letter to NJDEP dated October 24, 2007. ESD modifications to the selected remedy are as follows:

1. Floating product and associated smear zone soils were excavated and disposed of off-site as an alternative to the active removal system selected in the ROD due to the low yield of floating product extraction system previously installed;
2. DEHP-impacted soils were excavated and disposed of off-site instead of being consolidated in to a soil treatment zone;
3. No re-infiltration of treated groundwater will be performed for the purpose of treating soil contamination, as all contaminated site soils were excavated to meet cleanup standards and disposed of off-site;
4. Following implementation of the source reduction remediation, all disturbed areas were restored to proposed final grades with a vegetative soil cover. The ROD selected a vegetative cover over the area of groundwater infiltration;
5. Excavation and off-site disposal of soils containing PCBs and lead were completed to meet the more stringent New Jersey Residential Direct Contact Soil Cleanup Criteria (RDCSCC) (0.39 ppm and 400 ppm, respectively) instead of the Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) (2.0 ppm and 600 ppm, respectively) as required in the ROD;
6. All soils above site-established cleanup levels were excavated and disposed of off-site during the source reduction remediation, instead of the excavation of some soils and on-site treatment through flushing of other soils as selected in the ROD;
7. Environmental use restrictions on the property as selected in the ROD are no longer needed since RDCSCC were met for PCBs and lead at the site.
8. It should be noted that while most of the site soils were excavated to levels below the water table thereby removing all contaminants, there is a limited area of soils in the southwest corner of the site, called the B-2 area, where soils were excavated to a depth of 2 feet and the excavation was then backfilled with clean fill. Two post-excavation samples collected at the base of this excavation in this area exceeded the NJDEP residential soils cleanup goal for antimony of 14 ppm. The concentrations of antimony collected at the base of the excavation are well below the NJDEP non-residential cleanup goal, and are covered with two feet of clean soil. Based on a review of all post-excavation samples of this limited area, USEPA and NJDEP have determined that the concentrations of antimony detected

during post-excavation sampling event do not warrant environmental use restrictions on the property. A detailed evaluation of this issue is available for review in the site files.

9. Also, it should be noted that the ESD does not address any changes to component 2 of the ROD which relates to the groundwater portion of the remedy. Therefore, the ESD does not address any changes to the groundwater pump and treat system as required by the ROD. Additional discussion of the groundwater AOC is presented below in Section 4.2.3.

4.2.2.7 Current Proposed Remedial Investigation Activities

On June 25, 2008, LEC received a NJDEP NOD letter dated June 19, 2008 following the Department's review of eight (8) quarterly Remedial Action Progress Reports (RAPRs) from 2Q2006 through 1Q2008. As stated in the June 19 NOD, the NJDEP required LEC to take "Corrective Action" consisting of the preparation and submittal of a RIW within 60 days after receipt of the NOD. Specifically, the RIW should propose work that would take place in order to "delineate groundwater contamination in the vicinity of MW-30s", and "identify source(s) areas that are degrading surface water quality in the ditch and the Rockaway River. An RIW was prepared and submitted in August 2008. Responses to general and specific deficiencies outlined within the June 19, 2008 NOD were included in the RIW and are outlined below.

~~4.2.2.7~~4.2.2.8 Responses to June 19, 2008 NOD

The Description of Deficiency stated that "Pursuant to Paragraph 29 of the Administrative Consent Order (ACO), failure to conduct additional remediation as directed and to submit subsequent Remedial Investigation Reports and Remedial Action Reports in Accordance with N.J.A.C. 7:26E as applicable." LEC disagreed with this statement and any notion of a deficiency was in error. LEC has worked very closely with the NJDEP on all matters related to the LEC Wharton project, and has always been in full compliance with, and has submitted all reports as required by, the ACO. As explained during many telephone conversations and e-mails, we regularly requested NJDEP Division of Land Use Regulation (DLUR) and Bureau of Case Management to review and expedite issuance of the requisite wetland and stream encroachment permits in order to complete the Post Remediation Monitoring Plan (PRMP) that NJDEP approved. It was critical to obtain data from all of the PRMP wells, especially the downgradient wetland wells, in order to adequately evaluate the efficacy of the Source Reduction remediation

and move the project forward (see discussion in the following paragraphs for additional details and how this matter directly pertains to the content of this RA Work Plan Addendum). As described further below, the requisite permits were finally received in February 2008, and the wells were installed shortly thereafter.

The June 19, 2008 NOD letter acknowledged receipt of Remedial Action Progress Reports (RAPRs) for each quarter of a year beginning with the 2Q06 report and the most recent being the 1Q08 report. However, the NJDEP June 19, 2008 letter did not acknowledge that the remaining wells as outlined in the NJDEP-approved Post Remediation Monitoring Plan (PRMP) were not yet installed because of the long delay in receiving the required wetland and stream encroachment permits from the NJDEP DLUR. The Land Use Regulation Program (LURP) Freshwater Wetlands Statewide General Permit No. 14 (GP-14) and Minor Modification Stream Encroachment Permit (mmSEP) applications were submitted to the DLUR on August 15, 2006 and March 26, 2007, respectively. These permits were finally approved as specified in the letter received on February 29, 2008 from the DLUR, as well as the trout maintenance time restriction waiver from DLUR and the Bureau of Freshwater Fisheries that allowed monitoring well installation between the dates of March 15th and June 15th.

As stated in the 2Q08 RAPR, the remaining monitoring wells specified in the PRMP were installed during the week of April 7, 2008. The new wells were sampled, and results were included in the 2Q08 RAPR, which was submitted to NJDEP on August 19, 2008. The data contained in the 2Q08 RAPR were used to develop some general conclusions that are summarized as follows:

- Concentrations of dissolved-phase COCs continue to decline downgradient from the main LNAPL source reduction area (data from the MW-30 well cluster), and these COCs are essentially limited in vertical depth to just below the bottom of the slurry monolith (specifically no more than 5 feet directly below the bottom of the monolith based on data from the MW-30 well cluster). For more information regarding the slurry monolith refer to the November 2005 Remedial Action Report Source Reduction.
- Neither BTEX nor DEHP were detected in any of the drainage ditch surface water samples during the second 2008 quarterly monitoring event, although low levels of DEHP have been occasionally detected in previous surface water samples from the drainage ditch receptor.

- Potential remaining source material appears to occur within a portion of the wetland area, and along the western edges of the drainage ditch.

As previously mentioned, USEPA took over as lead agency following finalization of the UAO and SOW in September 2009. USEPA required the August 2008 RIW be renamed Remedial Design Report (RD Report) Addendum No. 1. This addendum was submitted in September 2009.

~~4.2.3.0~~4.2.2.9 Remedial Action Work Plan Addendum

USEPA requested that an Addendum to the NJDEP approved Remedial Action Work Plan for Source Reduction (RMT, 2004) (RA Work Plan Addendum) be prepared that combined the Remedial Investigation Work Plan (RIW) for the MW-30 area, and the Remedial Action Section Report (RASR) and RIW for the MW19HS1 area. An RA Work Plan Addendum was prepared in accordance with guidance on remedial workplans as described in 40, Code of Federal Register (*CFR)* Pt. 300, National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and the USEPA 1995 *Remedial Design/Remedial Action (RD/RA) Handbook,* Publication 9355.0-4B, Washington, D.C., and submitted to USEPA for review on September 4, 2009.

4.2.3 Shallow Groundwater AOC

As discussed above in Section 4.2.2.6, an ESD was granted on October 24, 2007, following implementation of the 2005 Source Reduction remediation. The exceptions listed in the ESD included the MW19HS1 area, and the component of the ROD which relates to the groundwater portion of the initial ROD remedy. Therefore, the ESD did not address any changes to the groundwater pump and treat remedy as required by the ROD. The purpose of the pump and treat system is to address the residual groundwater contamination after the floating product areas have been remediated, however; the pump and treat remedy for groundwater is currently being reevaluated in light of a monitored natural attenuation (MNA) groundwater remedy.

4.2.3.1 Post Remedial Monitoring Program (PRMP)

Discussions were initiated by LEC and RMT with both NJDEP and USEPA during the fourth quarter of 2005 (4Q05) regarding the development and installation of the post source reduction site monitoring network in accordance with the submitted PRMP. A formal regulatory review and comment letter regarding the PRMP was received by LEC on February 22, 2006. RMT prepared a response to the February 22, 2006 NJDEP comments in Section 1 of the 1Q06

RAPR dated May 9, 2006. NJDEP approved the 1Q06 RAPR including response to the PRMP comments in their letter dated March 30, 2007.

RMT, on behalf of LEC, began installing the PRMP monitoring well network within the source area on June 5, 2006. RMT and LEC submitted the necessary GP-14 permit application to the NJDEP DLUR on August 14, 2006 requesting authorization to install the remaining five monitoring wells (i.e., monitoring devices) in the wetland area located east of the site (Wharton Enterprise property). In February 2007, RMT was notified during follow up conversations regarding approval of the GP-14 application that a modification to the existing Stream Encroachment Permit (1439-04-0001.1 FHA040001 SEP) would be required in order to allow the placement of fill material in the 100-year floodplain. This fill material is required because the remaining five monitoring wells had to be installed through mounds to facilitate screening the shallow water table with a properly constructed well. RMT submitted the requested SEP modification to NJDEP DLUR on March 26, 2007 to avoid further delays.

The GP-14 permit/SEP modification permits were received March 31, 2008. RMT, on behalf of LEC, formally requested a waiver from the requirements of GP-14 Permit Special Condition No. 1 – Prohibition of construction activities between the dates of March 15 and June 15 to protect the trout stocked water of the Rockaway River in a letter dated March 18, 2008. Specifically, RMT requested approval to install, construct, and restore the five (5) mounded groundwater monitoring wells as described in the GP-14 permit application dated August 15, 2006 [Revised March 22, 2007 and last revised September 7, 2007] during the week of April 7, 2008. RMT received approval of the waiver in an email from the Bureau of Freshwater Fisheries dated March 25, 2008. Therefore, on April 6, 2008, RMT mobilized to the LEC site to complete the PRMP well network installations. Details of the monitoring well installations and well details can be found in Section 3 of the 2Q08 Remedial Action Progress Report (RAPR).

The 2Q08 monitoring event marked the first time that all of the wells specified in the PRMP were sampled. The 2Q08 sampling event is the ninth event for the source area monitoring wells installed in June 2006. This period of time since sampling and testing the 2006 wells began was a result of the more than two year period of time it took for the New Jersey DLUR to approve the GP-14 and Stream Encroachment Permit applications.

As outlined in the PRMP, the following monitoring activities are conducted on a quarterly basis:

- Static water level measurements are collected from thirty-nine (39) groundwater monitoring well locations and twelve (12) surface water (Rockaway River and drainage ditch) locations using an electronic water level indicator.
- Grab samples are collected from the five (5) drainage ditch and seven (7) Rockaway River surface water sample locations. Surface water samples are analyzed for BTEX and DEHP only.
- Low flow sampling is conducted at twenty (20) monitoring wells. Groundwater samples are analyzed for BTEX, DEHP, and MNA parameters (*field*: DO, pH, ORP, conductivity, turbidity, temperature, ferrous iron, alkalinity, and carbon dioxide; *laboratory*: heterotrophic plate count, TSS, TDS, nitrate nitrogen, ammonia nitrogen, total phosphorus, sulfate, methane and dissolved lead).
- Analytical data tables (*e.g.*, field and lab data), a site wide potentiometric surface drawing, various trend charts and drawings are generated as required based on data received throughout the years of monitoring. In addition, text describing procedures, methods, results and recommendations for each sampling event are also generated.
- Quarterly monitoring reports are prepared and submitted, as required by the 2009 UAO to USEPA and copied to NJDEP, on or before the last day of the month following the reportable quarter (*i.e.*, 1Q08 = April 30, 2008).

4.2.3.2 Continued Monitored Natural Attenuation (MNA) Evaluations

USEPA supports the continued evaluation of MNA as an alternate groundwater remedy for the site. In January 2005, LEC began quarterly implementation of the approved MNA work plan to collect the required data to determine if MNA would be an effective alternate remedy for groundwater on a site wide basis. USEPA will continue to evaluate the results of this ongoing MNA investigation and will determine, in the future, if MNA is the appropriate remedy for this site following the results of ongoing residual source investigations and remediation within both the MW19HS1 and MW-30 AOCs.

4.3 System Operations and Maintenance

Operation, monitoring, and maintenance activities at the Site commenced in 1980 and are ongoing. The OM&M costs incurred during the past five-year review period (2005-2009) are as follows:

YEAR	ANNUAL OM&M COSTS
2005	$9,424,932
2006	$320,649
2007	$286,764
2008	$325,376
2009	$219,995
Total	**$10,577,716**

The costs for 2005 were significantly higher due to inclusion of the 2005 Source Reduction remediation.

Section 5
Progress since the Last Five-Year Review

This is the first five-year review completed for the site. However, as described above in Sections 3 and 4, significant work has been completed since implementation of the 1994 ROD.

Section 6
Five-Year Review Process

6.1 Administrative Components

Notification of commencing the five-year review process was provided by the USEPA to LEC on August 17, 2009. This five-year review report was prepared by RMT on behalf of LEC for submission to the USEPA. This five-year review is scheduled to be completed prior to January 16, 2010.

6.2 Community Notification and Involvement

This Five-Year Review Report has been prepared on behalf of LEC for submission to the USEPA. LEC has not presented this report for public access or review. This document is being provided to USEPA for informational purposes only, and will not become part of the Site Administrative Record (AR). The 5 Year Review Report authored by USEPA will become part of the AR.

6.2.1 Prior Community Involvement Highlights

The following documents were made available to the public for review:

- Revised Report of Remedial Investigation Findings (June 1990)
- Supplemental Remedial Investigation (November 1990)
- Baseline Risk Assessment (January 1992)
- Bioremediation and Soil Flushing Treatability Study Report (July 1992)
- Final Supplemental Remedial Investigation Report ((September 1992)
- Rockaway River Sediment Ecological Assessment (March 1993)
- Final Feasibility Study (October 1993)
- The RI/FS Reports and the Proposed Plan for the LEC site were released to the public for comment on December 1, 1993. These documents were made available to the public in both the administrative record and an information repository maintained at the Wharton Borough Municipal Building and the Wharton Public Library. The notice of availability for these documents was published in the Daily Record on December 1, 1993. A public comment period on the documents was held from December 1, 1993 to December 31, 1993. In addition, a public meeting was held in the Borough of Wharton on December 8, 1993. At this meeting,

representatives from NJDEP, LEC, and Weston answered questions about the site and the remedial alternatives under consideration.

- A public meeting was held on June 28, 1989 in Wharton Borough which informed the public of the initiation of the RI/FS activities. The community expressed concerns regarding alleged "satellite" dumping locations which were subsequently investigated. NJDEP also held a meeting with local officials on June 5, 1992 to brief them on the progress of the site investigation.
- A technical memorandum summarizing the then current conditions at the Site was prepared and submitted to the Wharton Borough LEC Special Committee in April 2002.
- A conceptual end use plan, consisting of basketball and tennis courts among other features, was drafted in February 2003. However, the North Main Street extension/re-route has since been in planning with the Borough of Wharton.

6.2.2 Current Community Involvement

A Community Involvement Plan (CIP) is currently being drafted for USEPA review that will address future community involvement activities related to the site. LEC completed activities in compliance with N.J.A.C. 7:26E-1.4 in August and September 2009 (*i.e.*, fence signs and sensitive populations and resource map checklist).

6.3 Document Review

The Five-Year review included a review of the relevant project documents submitted on behalf of LEC to the USEPA and/or the NJDEP between December 2004 and December 2009. Documents reviewed as part of this five-year review process include:

- All quarterly groundwater monitoring reports generated by RMT during the past five years. Submitted report titles include: *Quarterly Monitoring Report* (1Q05 to 3Q06), *Remedial Action Progress Report* (4Q06 to 4Q08), and *Quarterly Monitoring Report* (1Q09 to 3Q09).
- Remedial Action Work Plan for Source Reduction (RMT, April 2004).
- Freshwater Wetlands GP-4 Permit Application, Stream Encroachment Permit Application, and the Freshwater Wetlands Mitigation Plan (JFNew, October 2004).
- Soil Erosion and Sediment Control Plan [SESCP] (RMT, November 2004).
- Pre-Construction Boring Report (RMT, January 2005).
- 2005 Monitored natural Attenuation [Monitoring Program Revision 2] (RMT, January 2005).
- Wetland Mitigation Construction Report (JFNew, August 2005).
- Post Remedial Monitoring Plan (RMT, October 2005).

- Remedial Action Report Source Reduction (RMT, November 2005).
- 2005 Mitigation Monitoring Report (JFNew, December 2005).
- Soil Gas Investigation in the MW19/Hot Spot 1 Area (RMT, May 2006).
- Application for Freshwater Wetland Statewide General Permit No. 14 [GP-14]- Water Monitoring Devices (RMT, August 2006).
- 2006 Mitigation Monitoring Report (JFNew, January 2007).
- Minor Modification to Stream Encroachment Permit No. 1439-04-0001.1 FHA 040001 SEP (RMT, March 2007).
- Remedial Action Selection Report [RASR] MW19/SP1 Area (RMT, September 2007).
- Remedial Design (RD) Report Addendum No. 1 (RMT, August 2008).
- Remedial Design (RD) Report Addendum No. 2 (RMT, November 2008).
- USEPA & LEC Agreement (USEPA, August 2009).
- Quality Management Plan (QMP) for RMT, Inc. (RMT, August 2009).
- Addendum to the Remedial Action Work Plan for Source Reduction (RMT, September 2009).

6.4 Current Regulations and Standards

All remedial work planning and action conducted at the site is performed in compliance with current regulations and performance standards, cleanup objectives, and applicable and relevant and appropriate requirements (ARARs) set forth in the 1994 ROD and 2007 ESD.

Site performance standards are as follows:

- Soil: N.J.A.C 7:26D, Appendix I, Table 1B, Non Residential Direct Contact Soil Health Based Criteria and Soil Remediation Standards
- Groundwater: N.J.A.C. 7:9C-1.7(c) and (d), Appendix Table 1, Class II A Groundwater Quality Criteria
- Surface Water: N.J.A.C 7:9B-1.15 (e), Table 3 (Category 1 FW2-TM(C1) (Rockaway River), N.J.A.C. 7:9B-1.4, "Category one waters" means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (g), for purposes of implementing the antidegradation policies set forth at N.J.A.C. 7:9B-1.5(d), for protection from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s) to protect their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality, and biological functions). Background concentrations are the concentrations found in upgradient sample SW-R-5, collected in the Washington Forge Pond.

- Sediments: NJ Site Remediation Program Guidance for Sediment Quality Evaluations Tables 1, 2 and 3 Sediment Screening Values.

6.5 Data Review (2005-2009)

Data reviewed under this five-year review process includes remedial investigations and quarterly groundwater and surface water monitoring results within the MW19HS1 area, the MW-30 source reduction area, the eastern wetland area (Wharton Enterprise property), and adjacent surface water bodies (*i.e.*, Rockaway River and eastern drainage ditch). All sampling was completed in accordance with the 1986 ACO and subsequent 2009 UAO, and as described in the Post Remedial Monitoring Plan (PRMP) and other regulatory correspondence.

6.5.1 MW19HS1 AOC

6.5.1.1 Site COCs

Table 1 summarizes the BTEX and DEHP concentrations for all of the seven (7) currently sampled MW19HS1 groundwater monitoring wells during the subject five-year review period (2005-2009). The lateral distribution of total BTEX concentrations in the MW-19/Hot Spot 1 Area is shown on **Figure 3** (as determined from the 3Q09 sampling event).

The higher of the Class IIA New Jersey Groundwater Quality Standard (C2A NJGWQS) for DEHP (2 µg/L) and Practical Quantitation Limit (PQL) (3 µg/L) has not been exceeded in any of the MW19HS1 area monitoring wells sampled during the subject five-year review period, with the exception of three anomalous detections – one each in MW-19 (4Q05), MW-19-4 (2Q07), and MW-19-5 (4Q06).

Data over the five-year review period shows that intrinsic bioremediation processes are strong and actively working to break down benzene, toluene, ethylbenzene, and xylenes (BTEX) components related to residual soil contamination. As can be seen from the data from MW-19-7, the "plume" of dissolved phase constituents of concern has shrunk. MW-19-7 analytical results show a consistent decrease in BTEX concentrations from a high in 4Q05 where all four constituents of concern were above NJGWQS (at concentrations of 62 µg/L, 16,000µg/L, 710 µg/L, and 3,600 µg/L, respectively) to current concentrations of all four BTEX constituents which are below NJGWQS and have been since 2Q07. Trends in BTEX concentrations within the MW19HS1 area are presented in Appendix C.

During the second quarter of 2006 (2Q06), MW-19-12 was installed between MW-19-7 and MW-19-11 in order to determine if dissolved BTEX constituents existed further northeast towards the residences on Ross Street. Data continue to show that MW-19-12 is downgradient of MW-19-7, and that no BTEX or DEHP were detected in MW-19-12 since its installation. As shown on Figure 3, this indicates that existing residual groundwater contamination in the MW19HS1 area is very limited in extent and poses no risk to the residences on the north side of Ross Street.

Cleanup levels are being achieved as a function of MNA, however, reaching the cleanup goals could take many years due to residual source material found in the area of MW-19, which is impacting the groundwater. Concentrations of benzene, ethylbenzene, toluene, and total xylenes consistently exceeded the higher of the C2A NJGWQS and PQL of 1 µg/L, 700 µg/L, 1000 µg/L, and 1000 µg/L, respectively, in groundwater collected from MW-19, while detections only sporadically exceeded the NJGWQS in samples collected from MW-19-5.

To address these exceedences, further delineation of residual soil contamination (lateral and vertical extent) in MW19HS1 area was presented to USEPA in the RD Report Addendum No. 2 dated November 14, 2008. Subsequent discussions with USEPA regarding the MW19HS1 area resulted in the submittal of a LOI (RMT, January 5, 2009). The LOI outlined a more streamlined approach to remediating the MW19HS1 area by combining the investigative and remedial measures proposed in the November 2008 RD Report Addendum No. 2 and September 2007 RASR, respectively. Specifically, the LOI proposed concurrent implementation of investigation and remediation, and focused the remedial alternative on soil excavation only. This streamlined approach was presented in an Addendum to the USEPA approved Remedial Action Work Plan (RMT, April 2004) that was submitted on September 3, 2009, and is currently under USEPA review.

It is anticipated that concentrations of the constituents of concern will rapidly decrease once the MW-19 work outlined in the "Addendum to the Remedial Action Work Plan for Source Reduction" report (RMT, September 2009) has been implemented.

6.5.1.2 MNA Parameters

Tables 2 and 3 summarize the MNA laboratory analytical and field data, respectively. All sampling and testing was done in accordance with approved 2001 MNA Workplan.

Natural attenuation (NA) of petroleum hydrocarbons via biodegradation (also known as intrinsic bioremediation) has been documented to be a universal phenomenon in that it occurs at 100% of sites with BTEX hydrocarbon contamination, and is found to be protective at more than 80% of those sites (Wiedemeier, 1997). Given the low concentrations exhibited over most of the sampling history for MW-19-7 (relative to MW-19-5), and based on results of MNA parameter testing (described in more detail below), intrinsic bioremediation is active at the Site.

Where MNA processes are present, groundwater contamination stops migrating at some finite distance from the source because biodegradation prevents plume expansion once relative equilibrium conditions have been achieved with respect to microbially mediated processes. Based on isoconcentration maps from the past five years and the data in Table 1, it appears that the size and shape of the plume within the MW19/Hot Spot 1 Area is gradually reducing in size. For example, at the upgradient edge of residual soil contamination, MW-19 shows evidence of overall concentration reductions over time. Within or immediately adjacent to the downgradient edge of residual soil contamination, MW-19-5 shows variable concentrations over time related to infiltration and water table fluctuation events. Further downgradient from the residual soil contamination MW-19-7 shows the least amount of BTEX concentrations and the highest concentrations of various NA parameters that are produced as a function of biodegradation. In addition, as described above, concentrations at MW-19-7 show that no COCs above NJGWQS have migrated to this well since February 2007.

The low concentrations of sulfate and nitrate observed within the plume (*e.g.*, MW-19-5), as compared to upgradient concentrations (*e.g.*, MW-19-4), are positive evidence biodegradation is taking place in the MW-19/Hot Spot 1 Area. In addition, several other parameters, such as carbon dioxide (CO_2), alkalinity, methane, and ferrous iron, are produced by the same micro-organisms during contaminant degradation and are also being monitored and tracked across the Site. Within the MW19HS1 plume area, the concentrations of all four previously mentioned parameters are significantly higher than compared to

background concentrations. These data, together with the trend to non-detect total BTEX concentrations in MW-19-7 and MW-19-12, indicate that biodegradation of BTEX compounds reaches completion near MW-19-7.

These data show that intrinsic bioremediation processes are strong and actively working to break down BTEX components related to residual soil contamination.

6.5.1.3 Soil Vapor

The results of the soil gas investigation performed on March 1 and 2, 2006 in accordance with the NJDEP's Vapor Intrusion (VI) Guidance Document (October 2005) are presented in Table 4 and shown on Figure 4. As shown on Table 4 and Figure 4, only 2 constituents were detected above the NJDEP Generic Vapor Intrusion Screening Levels criteria in the 7 soil gas samples collected. Benzene and 1,3-Butadiene were detected in SG-06-01, and SG-06-04 through SG-06-07 above the residential screening levels. Benzene was also detected above the residential screening level in SG-06-03. Soil gas sample location SG-06-02, a downgradient location closest to the north side of Ross Street, did not exceed screening levels for any constituent tested.

Detectable soil gas constituents were collocated with the dissolved-phase concentrations in groundwater. Based on the groundwater hydraulics, and given Darcy's mathematical law governing groundwater flow, RMT concluded that groundwater with dissolved-phase concentrations of COCs cannot migrate directly north across Ross Street and therefore does not pose a risk to the Ross Street residences.

6.5.2 MW-30 AOC

Table 1 summarizes the BTEX and DEHP concentrations for all of the currently sampled MW-30 area groundwater monitoring wells during the subject five-year review period (2005-2009). As described above in Section 4.2.3.1, data from six of the MW-30 area groundwater monitoring wells dates back to 2Q06 while data from the remaining five wetland area groundwater monitoring wells only dates back to 2Q08. Tables 2 and 3 summarize all MNA laboratory analytical and field data, respectively.

Low levels of dissolved groundwater contamination were consistently detected in the source reduction area interior monitoring wells MW-28s and MW-28i (Table 1) over the subject five-year review period (2005-2009). Benzene and toluene have not been

detected in the MW-28 well cluster since 4Q06. Ethylbenzene and xylene have not been detected in intermediate well MW-28i since 1Q07. Samples collected from MW-28s contain levels of dissolved ethylbenzene and xylene; however, the concentrations are generally decreasing over time. No BTEX constituents are present at levels that exceed current NJGWQS. Dissolved DEHP concentrations continue to fluctuate at both MW-28s and MW-28i; however, the overall trend of DEHP concentrations in both wells is generally downward. Trend charts showing the BTEX and DEHP concentrations within the MW-30 area are presented in Appendix D.

Site COCs also continue to be found dissolved in groundwater from source reduction area downgradient well MW-30s. However, only DEHP remains above NJGWQS; all BTEX have been either not detected or below NJGWQS since May 2008. The trend of DEHP in well MW-30s, while fluctuating somewhat from quarter to quarter, is generally downward. Since September 2007, no contaminants have been detected in wells MW-30i and MW-30d, with the exception of four small detections of DEHP in MW-30i, just slightly above the detection limit. This indicates that the vertical extent of Site constituents of concern in the vicinity of the MW-30 cluster is limited to only the top five feet or less of the shallow water table (within the first five feet of aquifer immediately below the slurry monolith).

Although overall concentrations of all constituents of concern in MW-30s continue to trend significantly downward (as of May 2008, only DEHP remained above drinking water criteria in MW-30s), because of the fluctuating concentrations of DEHP in MW-30s, RMT prepared RD Report Addendum No. 1 to further evaluate concentrations remaining in this area and address residual contamination just outside of the downgradient part of the main source reduction area (wetland area wells just installed in spring 2008; see discussion in following paragraphs). The scope of work outlined in the August 2008 RD Report Addendum No. 1 was presented in the Addendum to the USEPA approved Remedial Action Work Plan (RMT, April 2004),submitted on September 3, 2009, and currently under USEPA review.

During the subject five-year review period, RMT also sampled the five (5) wetland area wells (MW-31s, MW-32s, MW-33s, MW-34s, and MW-35s) for groundwater quality. The location of these wells, with respect to the source reduction and wetland areas, are shown on Figure 2.

Since May 2008 when the wetland area wells were installed, groundwater samples collected from all of the wetland area wells have had concentrations of DEHP above the higher of the C2A NJGWQS and PQL. DEHP concentrations in every wetland well

show increasing trends, with the exception of MW-32s which shows an overall generally decreasing trend. Groundwater samples collected from MW-31s, MW-32s, MW-34s and MW-35s also contained concentrations of benzene, ethylbenzene and total xylenes above the higher of the C2A NJGWQS and PQL (Table 1) over the five-year review period.

The concentration trends of dissolved benzene, ethylbenzene, and xylenes will continue to be carefully monitored within the wetland area. Furthermore, additional investigations to determine nature and extent is proposed for this area as described in the September 3, 2009 Addendum to the USEPA approved Remedial Action Work Plan. The Addendum focuses on characterization and gathering data that will be used to develop a means to prevent discharge of groundwater contamination into the ditch and Rockaway River.

Based on the Site wide groundwater flow map (Figure 5), the receptor downgradient from the central portion of the source reduction area represented by results from the MW-28 cluster is the drainage ditch. Groundwater from other portions of the source reduction area flows towards the wetland area and the Rockaway River.

6.5.3 Surface Water

Table 5 summarizes the BTEX and DEHP concentrations for the sampled surface water locations during the subject five-year review period (2005-2009).

The Rockaway River adjacent and downstream from the LEC site is classified as a Category 1 fresh water trout maintenance stream [Ref. Surface Water Quality Standard Reference: N.J.A.C 7:9B October 2006; (Dover) - Washington Pond outlet downstream to Rt. 46 bridge; FW2-TM (C1)]. As such, RMT compared COC concentrations detected in the drainage ditch and Rockaway River samples against the NJSWQC for Toxic Substances outlined in Section 7:9B-1.14(f) 7 of the Surface Water Quality Standard Reference.

Seven (7) surface water samples are routinely collected from the Rockaway River (Ref. Figure 2 and Table 5). Sampling performed during the 3Q09 event showed non-detect for all COCs; however, sporadic detections of DEHP slightly above the New Jersey Surface Water Quality Standard (NJSWQS) have occurred in various Rockaway River samples (SW-R-1, SW-R-2, SW-R-3, SW-R-4) since initiating sampling in April 2005.

Five (5) points within the eastern drainage ditch that separates the adjacent Air Products property from the LEC site and the adjacent Wharton Enterprises property are routinely

sampled for surface water quality (Ref. Figure 2 and Table 5). This sampling was conducted at the request of NJDEP as outlined in their letter dated March 23, 2005.

Various drainage ditch surface water samples collected from 2005 to 2009 have shown DEHP above the applicable New Jersey Surface Water Quality Standard (NJSWQS). BTEX has not been detected above the NJSWQS at any of the drainage ditch surface water monitoring locations since sampling was initiated.

Surface water sampling at the eastern drainage ditch as well as the Rockaway River and Washington Forge Pond will continue to take place during each quarterly monitoring event. Specifics regarding surface water sampling locations, frequency and analytes are presented in the SAP/QAPP. Migration of Site contaminants into the ditch environment will be addressed during the upcoming on-site investigations that are included in the Addendum to the 2004 Remedial Action Workplan, submitted in September 2009.

6.6 Site Inspections

Visual site inspections were performed quarterly during the subject five-year review period (2005-2009) by RMT and documented in each of the quarterly monitoring reports. Quarterly site inspections include, but are not limited to, the following:

- Inspection of all monitoring well devices.
- Status of wetland vegetation.
- Presence of any erosion evidence, and surface sheens
- Integrity of site security measures (fences/gates, *etc.*).

Based on the findings of the site inspections performed during the five-year review period, the site is in good condition, with the exception of monitoring well MW-30s which has been vertically displaced/heaved due to winter freeze and thaw. This well will be abandoned and re-installed during implementation of the MW-30 area scope of work described in the Addendum to the 2004 RA Workplan. A photographic log from the most recent RMT site inspection (August 2009) is included in Appendix E.

In addition to quarterly inspections by RMT, JFNew completed the annual wetland mitigation inspections as required by the NJDEP 2005 GP-4 wetlands permit. Mitigation site inspections and monitoring reports include the following:

- Photographs of the wetland mitigation areas.
- Assessment of vegetative communities and evaluation of whether a dominance of wetland species exists (according to federal wetland indicator status of species identified).

- Wildlife utilization evaluation.
- Hydrology evaluation.
- Soil evaluation.
- Sediment loading evaluation.
- Evaluation of sideslope and transition area conditions. Evaluation of overall progress toward successful achievement of wetland creation as designed, per each of the performance standards dictated for the project. Perform a comparative assessment between existing conditions and the performance standards.

The 2009 year is considered the fifth and final growing season where monitoring and reporting is required by the 2005 GP-4 wetland remedial permit. The 2009 Annual Wetland Mitigation Report will be submitted in December 2009.

6.7 Interviews

No site interviews were conducted by LEC, and no site interviews have been conducted by the USEPA or NJDEP (to the knowledge of LEC).

Section 7
Technical Assessment

The USEPA five-year review process identifies three topics (Questions A, B, and C) that should be focused on for the five-year review technical assessment. Answers to each of the technical assessment questions are used as a framework for the protectiveness determination.

7.1 Remedy Effectiveness

Question A: Is the remedy functioning as intended by the decision documents?

7.1.1 Remedial Action (RA) Performance

7.1.1.1 MW19HS1 AOC

The principle RA performed in the MW-19 area consisted of initial source removal operations (underground storage tank and contaminated soil removal) that took place as part of the original ROD implementation in 1991 (*Final Technical Report for Tank Removal Operations;* Roy F. Weston, September 1991). During the past five years, the MW-19 area has been actively monitored to demonstrate occurrence of natural attenuation (NA) of residual groundwater contamination and risk analysis (groundwater quality and soil gas evaluations) regarding nearby residences located north of (across Ross Street from) the site. The data shows that the RA continues to be functioning in that data shows significant reductions in the size of the area where residual constituents of concern are dissolved in groundwater (validating occurrence of MNA), and that soil gas data verified residual groundwater contaminant distribution and showed no risk from volatilization into indoor air at the Ross Street residences (see May 2006 "Soil Gas Investigation in the MW19/Hot Spot 1 Area"). However, the rate of reductions in both area and concentration indicated that residual source was likely still present under the existing on-site buildings. Because anticipated future building demolitions could result in a new influx of residual contamination into the shallow groundwater, an investigation of potential residual sources was undertaken as described in the "RD Report Addendum No. 2" (RMT, November 2008). The results of the work verified the presence of residual source material within the vadose zone under the building. Work designed to remove this residual source material is detailed in the

Addendum to the Remedial Action Work Plan for Source Reduction report recently submitted to USEPA in September 2009.

As described above, while cleanup levels are being achieved as a function of MNA, reaching the cleanup goals could take several decades or more, especially after buildings have been demolished which would likely result in an influx of additional contaminant from the residual vadose zone source material residing below the building. It is anticipated that cleanup levels will be rapidly achieved once the MW19HS1 work outlined in the Addendum to the Remedial Action Work Plan for Source Reduction report (RMT, September 2009) has been implemented.

The containment of residual contaminants in the MW19HS1 area via the MNA alternative has been effective because data clearly show that groundwater contaminants are not migrating off site, and volatilization into the indoor air of nearby residences is not occurring.

7.1.1.2 MW-30 AOC

The principal remedial action (RA) that occurred at the LEC site in the past five years was excavation and off-site disposal of previously defined waste streams within the following Areas of Environmental Concern (AEC):

- AECs A-1, A-2 and A-3 [Lead Impacted Soils removed in January and February 2005]
- AECs B-1 and B-2 [Process Wastes removed in February and March 2005]
- AEC PA [PCB Impacted Soils removed in March and April 2005]
- AEC C-1 [Floating Free Product and Smear Zone Soils removed in March, April, and May 2005]

The RA operated and functioned as designed (in the approved Remedial Action Work Plan and associated Response and Comments approved by USEPA and NJDEP on December 21, 2004), and was documented in the August 29, 2005 Remedial Action Report (approved by USEPA and NJDEP on September 14, 2007) and USEPA's October 24, 2007 Explanation of Significant Difference. There are no ongoing operations specifically associated with the 2005 RA; however, ongoing monitoring of residual groundwater contamination continues to operate and function as designed in the Post Remediation Monitoring Plan (PRMP dated October 2005; NJDEP approval of PRMP Response to Comments dated January 12, 2007) and the Addendum to the

Remedial Action Work Plan for Source Reduction report recently submitted to USEPA in September 2009.

The 2005 RA is no longer being "performed" in that it consisted of a robust excavation and removal operation that was completed between the months of January and June 2005. Cleanup levels were achieved as follows:

- All lead-impacted soils above the residential cleanup objective (400 ppm CO) were excavated and disposed off site. Achievement of cleanup objectives for the lead-impacted soils is documented by confirmatory sample data provided in the October 2005 "Remedial Action Report - Source Reduction".
- All process (hazardous) wastes were excavated and disposed off site achieved (complete removal). Achievement of cleanup objectives for the process wastes is documented by confirmatory sample data provided in the October 2005 "Remedial Action Report - Source Reduction".
- PCB impacted soils above the residential cleanup objective (0.49 ppm CO) were excavated and disposed off site. Achievement of cleanup objectives for the PCB soils is documented by confirmatory sample data provided in the October 2005 "Remedial Action Report - Source Reduction".
- All previously delineated areas of LNAPL free product along with its' associated smear zone was removed by excavating under a slurry (Impermix® slurry consisting of water, attapulgite clay and pozzolan cement) in order to effectively excavate soils below the water table down to the targeted depths representing the vertical extent of the LNAPL smear zone. The expected cleanup level for the LNAPL SRE (as specified in the April 2004 Remedial Action Work Plan for Source Reduction) was removal of free product and smear zone soils, and this was achieved as evidenced by data generated during the RA (and documented in the October 2005 "Remedial Action Report - Source Reduction"), as well as the fourteen (14) quarterly monitoring events that have occurred (beginning 2Q06 through present) as part of the Post Remediation Monitoring Plan (PRMP). All of the 14 PRMP monitoring events show that no free product exists within the Former LNAPL/MW-30 area.

The containment of site contaminants within the source reduction area via the excavation alternative was effective because the principle waste streams were excavated and transported and disposed off site.

7.1.2 System Operations/O&M

No active "system" operations and maintenance activities were performed during this 5 year period with the exception of quarterly site wide monitoring and reporting. No active remediation systems currently exist at the site.

7.1.3 Opportunities for Optimization

7.1.3.1 MW19HS1 AOC

It is anticipated that cleanup levels will be more efficiently achieved once the MW19HS1 work outlined in the Addendum to the Remedial Action Work Plan for Source Reduction report (RMT, September 2009) has been implemented. Therefore, an opportunity to reduce future monitoring (including significant reductions in both the number of post-remediation wells and sampling frequency) exists for this AOC.

7.1.3.2 MW-30 AOC

Future opportunities for optimization may exist for this area once the work outlined in the recently submitted Remedial Action Work Plan for Source Reduction report (RMT, September 2009) has been implemented.

7.1.4 Early Indicators of Potential Issues

7.1.4.1 MW19HS1 AOC

There are no early indicators of potential issues in this AOC. As described above, it is anticipated that cleanup levels will be rapidly achieved once the MW-19 work outlined in the Addendum to the Remedial Action Work Plan for Source Reduction report (RMT, September 2009) has been implemented.

7.1.4.2 MW-30 AOC

Early indicators of potential issues in this AOC include impact to sediments within the man-made ditch receptor because levels of DEHP slightly above state surface water cleanup criteria continue to be detected. However, it should be noted that none of the site constituents of concern have been detected in the principle receptor, the Rockaway River. These issues will be adequately addressed following implementation of the Remedial Action Work Plan for Source Reduction report (RMT, September 2009) and anticipated follow-up RA(s).

7.1.5 Implementation of Institutional Controls and Other Measures

7.1.5.1 MW19HS1 AOC

Access controls (fencing and warning signs) remain in place. These help prevent exposures to groundwater that can be extracted from monitoring wells.

7.1.5.2 MW-30 AOC

Access controls (fencing and warning signs) remain in place and help prevent exposures that could occur in the vicinity of the wetland and ditch areas.

7.2 Exposure Assumptions

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

7.2.1 Changes in Standards and TBCs

There have been no changes in existing standards or To Be Considered applicable relevant and appropriate requirements (ARARs) in any of the three remaining AOCs.

7.2.2 Changes in Exposure Pathways

7.2.2.1 MW19HS1 AOC

There have been no changes in exposure pathways based on land-use, routes of exposure, unanticipated toxic byproducts, and receptors that could occur in the vicinity of the MW-19 area. However, additional data collected under the nearby building shows that some residual source material occurs in the vadose zone that will be remediated once the building has been demolished. This issue is addressed in the recently submitted Remedial Action Work Plan for Source Reduction report (RMT, September 2009).

7.2.2.2 MW-30 AOC

There have been no changes in exposure pathways based on land-use, routes of exposure, unanticipated toxic byproducts, and receptors that could occur in the vicinity of the wetland and ditch areas. However, the understanding of site conditions has changed as a result of the PRMP monitoring program. Specifically, limited free product was discovered during recent implementation of the PRMP downgradient from (outside of) the Former LNAPL/MW-30 area

within the former AEC PA (PCB area in the Wharton Enterprises property located to the east of the site). The residual groundwater contamination and free product in the MW-30 AOC is being addressed as outlined in the Addendum to the Remedial Action Work Plan for Source Reduction report recently submitted to USEPA in September 2009.

7.2.3 Changes in Toxicity and Other Contaminant Characteristics

There have been no changes in toxicity and other contaminant characteristics in the vicinity of the MW-30, wetland, ditch, or MW19HS areas.

7.2.4 Changes in Risk Assessment Methods

There have been no changes in risk assessment methods that could affect the protectiveness of past and future remedies in the three remaining AOC's.

7.2.5 Expected Progress towards Meeting RAOs

7.2.5.1 MW19HS1 AOC

Changed conditions in the MW19HS1 AOC have resulted in the development of a proposed remedial approach outlined in the recently submitted Addendum to the Remedial Action Work Plan for Source Reduction report (RMT, September 2009). This remedy is undergoing final review by USEPA.

7.2.5.2 MW-30 AOC

Changed conditions in the MW-30 AOC have resulted in submittal of a proposed remedial investigation in the recently submitted Addendum to the Remedial Action Work Plan for Source Reduction report (RMT, September 2009). This investigation is undergoing final review by USEPA.

7.3 Other Pertinent Information

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. Other than the information discussed above, LEC and USEPA are not aware of any other information that could call the protectiveness of the remedy into question.

Section 8
Issues

The following issues associated with the current site operations, conditions, and activities that currently prevent the remedy from being protective have been identified during this 2009 first five-year review period:

ISSUE	CURRENTLY AFFECTS PROTECTIVENESS (Y/N)	AFFECTS FUTURE PROTECTIVENESS (Y/N)
Concentrations of BTEX parameters have remained stable or have decreased in the MW19HS1 area wells during the five-year review period, and concentrations have decreased (in some cases significantly) since the first monitoring event in the early 1980's. During the five-year review period (2005-2009), concentrations of BTEX exceeded the NJGWQS in MW-19 and MW-19-5. A discussion of these exceedances is contained in Sections 6 and 7.	N	N
Concentrations of DEHP have remained stable or have generally decreased in the MW-30 area wells during the five-year review period. The concentrations of DEHP have exceeded the NJGWQS in MW-38s, MW-28i, and MW-30s. A discussion of these exceedances in contained in Sections 6 and 7.	Y	Y
Concentrations of DEHP, ethylbenzene, and total xylenes have remained stable or have decreased in several of the MW-30 area wetland wells. During the five-year review period, these concentrations exceeded the NJGWQS. A discussion of these exceedances is contained in Sections 6 and 7.	Y	Y

Section 9
Recommendations and Follow-up Actions

LEC recommends the following changes to improve the overall effectiveness of the site remediation:

- Implementation of the scopes of work outlined in the September 2009 Addendum to the 2004 Remedial Action Work Plan for Source Reduction

Section 10
Protectiveness Statement(s)

10.1 MW19HS1 AOC

The remedy will be protective of human health and the environment upon completion of the proposed remedial action. In the interim, exposure pathways that could results in unacceptable risks are being controlled.

10.2 MW-30 AOC

A protectiveness determination of the remedy cannot be made at this time until further information is obtained. Further information will be obtained during completion of the remedial investigation outlined in the Addendum to the Remedial Action Work Plan currently under USEPA review. It is expected that these actions will take approximately six months to complete, at which time a protectiveness determination can be made.

Section 11
Next Review

The next five-year review for the Dayco Corporation/L.E. Carpenter & Company Superfund Site will be completed within five years of the signature date of this five-year review (*i.e.*, 2014).

Tables

TABLE 1
GROUNDWATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	SAMPLE DATE	QUARTER	ANALYTICAL PARAMETERS: Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
MW19							
Dilution factor for BTEX 2000	24-Feb-95	1	< 680	1,700	110,000	10,000	NR
Dilution factor for BTEX 100	14-Jun-95	2	150	3,400	140,000	17,000	NS
Dilution factor 5000 for BTEX & 2 for DEHP; MDL for Benzene 1000 ug/l	24-Apr-98	2	< 1,000	2,850	76,700	14,900	7
Dilution factor for BTEX 500	2-Aug-01	3	< 95	3,000	62,000	17,000	3
Dilution factor for BTEX 1000	6-Jun-02	2	< 200	1,000	30,000	6,000	6
Dilution factor for BTEX 100, Toluene 200	20-Nov-03	4	< 20	1,500	40,000	7,400	J 6
	15-Jun-04	2	< 100	1,400	46,000	6,600	J 4
Dilution factor for BTEX 100, Toluene 500	10-Aug-04	3	< 20	2,100	58,000	11,000	J 2
Dilution factor for BTEX 50	13-Jan-05	1	< 10	750	18,000	3,600	< 1
Lower Grab Water Sample; Dilution factor for BTEX 5	8-Apr-05	2	< 1	97	1,300	530	J 3
Upper Grab Water Sample; Dilution factor for Toluene 5	8-Apr-05	2	< 0.2	86.0	410.0	430.0	J 3.0
Dilution factor for BTEX 200	27-Jul-05	3	< 40	1,100	44,000	6,000	J 2
Dilution factor for BTEX 100	27-Oct-05	4	< 20	200	10,000	1,200	J 5
Dilution factor for BTEX 250	28-Feb-06	1	< 50	880	28,000	4,900	J 3
Dilution factor for BTEX 200	20-Jun-06	2	< 40	1,600	53,000	8,700	J 3
Dilution factor for BTEX 200	13-Sep-06	3	< 40	2,100	51,000	11,000	J 3
Dilution factor for BTEX 200	8-Nov-06	4	< 40	2,200	59,000	11,000	J 2
Dilution factor for BTEX 500	8-Feb-07	1	< 500	1,900	93,000	9,800	< 1
Dilution factor for BTEX 50, Toluene 200	27-Jun-07	2	< 50	680	32,000	3,000	< 1
Dilution factor for BTEX 100, Toluene 500	12-Sep-07	3	< 100	1,500	76,000	7,300	3
Dilution factor for BTEX 250, DEHP 1.1	4-Dec-07	4	< 250	1,500	49,000	7,500	< 1
	20-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1
Dilution factor for BEX 100, Toluene 200, DEHP 1.05	7-May-08	2	< 100	650	26,000	2,800	< 1
Dilution factor for Benzene 10, Ethylbenzene & Xylenes 200, Toluene 500	23-Jul-08	3	< 10	1,000	35,000	5,400	< 1
Dilution factor for BTEX 200	29-Oct-08	4	< 40	1,400	43,000	6,800	J 3
Dilution factor for Benzene 50, Ethylbenzene & Xylenes 50, Toluene 500	14-Jan-09	1	< 45	700	34,000	3,500	J 2
Dilution factor for BEX 50, Toluene 500	8-Apr-09	2[5]	< 45	940	37,000	4,800	J 3
Dilution factor for BEX 50, Toluene 500	22-Jul-09	3	< 45	1,100	48,000	5,700	J 1
MW19-4							
	12-Mar-98	1	< 0.2	< 0.1	< 0.1	< 0.5	< 1.3
	2-Aug-01	3	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5
	6-Jun-02	2	< 0.22	< 0.18	< 0.24	< 0.20	< 0.50
	19-Nov-03	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	28-Feb-06	1	< 0.2	< 0.2	2.2	< 0.6	< 1.0
	21-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	12-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	12-Sep-06	3duplicate	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 10	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	17
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	4-Dec-07	4duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.11	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	1.1
Dilution factor for DEHP 1.11	6-May-08	2 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.1
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	28-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	13-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	7-Apr-09	2[4]	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	22-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
MW19-5							
Dilution factor for BTEX 5000	12-Mar-98	1	< 1,000	1,920	123,000	10,100	42
Dilution factor for BTEX 1000	2-Aug-01	3	< 190	870	79,000	5,200	3
Dilution factor for BTEX 500	7-Mar-02	1	< 140	300	10,000	1,700	1
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2	< 1,100	1,100	92,000	6,300	< 10
Dilution factor for BTEX 5000, for DEHP 20	5-Jun-02	2duplicate	< 1,100	1,300	92,000	6,900	< 9
	19-Nov-03	4	< 0.2	< 0.2	4.3	J 0.9	< 0.9
	18-Dec-03	4resample	< 0.2	3.7	240.0	24.0	< 0.9

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USEPA ID No. NJD002168748

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	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
	16-Jun-04	2	< 100	1,400	83,000	7,400	J 1
	10-Aug-04	3	< 200	2,800	140,000	13,000	J 1
Dilution factor for BTEX 10	13-Jan-05	1	< 2	64	3,100	340	< 1
Dilution factor for BTEX 200, Lower Grab Water Sample	9-Apr-05	2	< 40	1,000	27,000	5,300	J 1
Upper Grab Water Sample	9-Apr-05	2	< 0.2	J 0.4	9.5	J 2.3	< 1.0
Dilution factor for BTEX 500	26-Jul-05	3	< 100	2,600	100,000	13,000	< 1
	27-Oct-05	4	< 0.2	6.8	140.0	37.0	< 1.0
Dilution factor for BTEX 100	28-Feb-06	1	< 20	290	19,000	1,500	< 1
Dilution factor for BTEX 20	20-Jun-06	2	< 4	130	4,000	730	< 1
Dilution factor for BTEX 100	13-Sep-06	3	< 20	550	25,000	2,800	< 1
Dilution factor for BTEX 100	8-Nov-06	4	< 20	410	22,000	2,000	9
Dilution factor for BTEX 500	8-Feb-07	1	< 500	2,100	98,000	10,000	< 1
Dilution factor for BTEX 100, Toluene 1000	27-Jun-07	2	< 100	1,700	98,000	8,200	< 1
Dilution factor for BTEX 100, Toluene 500	12-Sep-07	3	< 100	1,100	67,000	5,200	1
Dilution factor for BEX 200, Toluene 50, DEHP 1.1	4-Dec-07	4	< 200	820	4,400	4,200	< 1
	20-Feb-08	1	< 1	8	190	45	< 1
Dilution factor for Toluene 5 [DUP-03]	20-Feb-08	1 duplicate	< 1	6	200	34	< 1
Dilution factor for BEX 5, Toluene 100, DEHP 1.05	7-May-08	2	7.2	270	15,000	1,300	< 1
	22-Jul-08	3	< 1.0	2,300	95,000	12,000	< 1
Dilution factor for BTEX 5	29-Oct-08	4	< 1.0	11	450	68	< 1
Dilution factor for BEX 5 and Toluene 50	14-Jan-09	1	< 5.0	64	3,800	360	< 1
Dilution factor for BEX 25 and Toluene 250	8-Apr-09	2	< 23.0	490	46,000	2,800	< 1
Dilution factor for BEX 50 and Toluene 500	8-Apr-09	2 duplicate	< 45.0	610	38,000	3,200	< 1
Dilution factor for BEX 50 and Toluene 500	22-Jul-09	3	< 45.0	1,200	68,000	6,600	< 1
MW19-6							
Dilution factor for BTEX 200	15-Nov-99	4	< 62	94	3,400	500	32
Dilution factor for BTEX 2	1-Aug-01	3	< 0.4	14.0	390.0	47.0	28
	5-Jun-02	2	< 0.22	1.70	13.00	4.10	2.30
	18-Nov-03	4	< 0.2	< 0.2	J 0.3	< 0.6	J 6.0
	17-Jun-04	2	< 0.2	J 0.4	1.1	1.2	J 3.0
	10-Aug-04	3	< 0.2	4.6	38.0	18.0	J 4.0
	13-Jan-05	1	< 0.2	4.0	36.0	14.0	J 1.0
Lower Grab Water Sample	9-Apr-05	2	< 0.2	16.0	160.0	64.0	< 1.0
Upper Grab Water Sample	9-Apr-05	2	< 0.2	11.0	74.0	37.0	< 1.0
	26-Jul-05	3	< 0.2	3.6	27.0	14.0	J 2.0
	27-Oct-05	4	< 0.2	5.4	110.0	25.0	< 0.9
	28-Feb-06	1	< 0.2	5.8	65.0	23.0	< 1.0
	20-Jun-06	2	< 0.2	1.7	3.2	5.0	< 1.0
	20-Jun-06	2 duplicate	< 0.2	1.7	3.2	4.9	< 1.0
	12-Sep-06	3	< 0.2	J 0.3	1.0	J 0.9	< 1.0
	7-Nov-06	4	< 0.2	J 0.3	< 0.2	J 0.6	< 0.9
	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for DEHP 1.25	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	14-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	7-Apr-09	2	< 0.9	J 1.0	8.0	J 4.0	< 1.0
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
MW19-7							
Dilution factor for BTEX 50	15-Nov-99	4	< 16	100	51	1,400	< 4
Dilution factor for BTEX 2	1-Aug-01	3	6.7	6.6	13.0	680	< 0.4
Dilution factor for BTEX 5	7-Mar-02	1	3	< 1	< 1	250	2
	5-Jun-02	2	0.48	1.60	27.00	27	< 0.40
	19-Nov-03	4	4.7	J 0.4	J 0.3	460	J 1.0
	16-Jun-04	2	J 2.8	130.0	2,100.0	630	< 1.0
	16-Jun-04	2 duplicate	J 4	130	2,100	610	< 1
	10-Aug-04	3	2	2	1	20	< 1
Dilution factor for BTEX 2	12-Jan-05	1	6.1	90.0	240.0	760	< 1.0

TABLE 1
GROUNDWATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
	12-Jan-05	1 duplicate	2.9	45.0	120.0	380	< 1.0
Lower Grab Water Sample; Dilution factor for BTEX 25	7-Apr-05	2	J 9.5	210.0	2,700	1,400	< 1.0
Upper Water Grab Sample; Dilution factor for BTEX 10	7-Apr-05	2	J 13	370	5,600	2,300	< 1
Lower Grab Water Sample	27-Jul-05	3	2.2	< 0.2	J 0.2	J 1.7	< 0.9
Upper Grad Water Sample	27-Jul-05	3	1.5	< 0.2	J 0.5	J 2.4	< 1.0
Dilution factor for BTEX 200	27-Oct-05	4	J 62	710	16,000	3,600	< 1
Dilution factor for Total Xylenes 5	28-Feb-06	1	7.5	4.9	J 0.3	870	< 1.0
Dilution factor for Total Xylenes 5	28-Feb-06	1 duplicate	7.5	5.0	J 0.3	840	< 0.9
	20-Jun-06	2	6.5	19.0	J 0.6	550	< 1.0
Dilution factor for Total Xylenes 5	12-Sep-06	3	4.9	33.0	J 0.3	440	< 1.0
	8-Nov-06	4	2.6	< 0.2	< 0.2	26	< 0.9
	7-Feb-07	1	2.6	< 1.0	< 5.0	< 3.0	< 1.0
	7-Feb-07	1 duplicate	2.6	< 1.0	< 5.0	< 3.0	< 1.0
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	23	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for DEHP 1.1	5-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.1
	19-Feb-08	1	< 1.0	7.3	55.0	36	< 1.0
Dilution for DEHP 1.05	7-May-08	2	< 1.0	< 1.0	< 5.0	5.6	< 1.0
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	28-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	28-Oct-08	4 duplicate	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	14-Jan-09	1	< 0.9	J 3.0	J 3.0	32.0	< 1.0
	7-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
MW19-12	21-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	12-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	7-Nov-06	4 duplicate	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
	6-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for DEHP 1.11	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.1
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	28-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	13-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	7-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
GEI-2S							
	24-Feb-95	1	< 8.2	46	1,500	380	7.6
	25-Mar-98	1	NS	NS	NS	NS	B 2.5
	6-Jun-02	2	1.2	2.6	16	5.1	2.4
	18-Dec-03	4	< 0.2	< 0.2	J 0.4	< 0.6	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for DEHP 1.18	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for Toluene 10	22-Jul-08	3	8.7	34	1,000	170	< 1.0
Dilution for Toluene 10	22-Jul-08	3 duplicate	8.1	31	830	160	< 1.0
	28-Oct-08	4	J 0.3	J 0.4	J 0.6	J 1.3	J 3.0
	13-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	7-Apr-09	2	< 0.9	J 3.0	120	13	< 1.0
	22-Jul-09	3	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry
MW-8							
	1-Sep-89	3					
	1-Jan-90	1					
	23-Jul-08	3	< 1.0	< 1.0	< 5.0	15	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	J 2.0
	14-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	8.0
	8-Apr-09	2(5)	< 0.9	< 0.8	< 0.8	< 0.9	J 3.0

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Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	J 2.0
MW-25R							
	21-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	21-Jun-06	2 duplicate	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	13-Sep-06	3	< 0.2	< 0.2	J 0.5	< 0.6	J 1.0
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	8-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	1.6
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP is 1.3	6-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.3
	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution for DEHP 1.29	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.3
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	J 0.3	< 0.6	< 1.0
	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
	7-Apr-09	2 (5)	< 0.9	< 0.8	< 0.8	< 0.9	J 1.0
	22-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
MW-27s							
	22-Jun-06	2	J 0.6	3.7	3.9	14	J 3.0
	11-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	J 2.0
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	J 1.0
	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	1.2
Dilution factor for DEHP is 1.4	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.4
Dilution factor for DEHP is 1.18	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
Dilution factor for DEHP is 1.16	7-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
	23-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	30-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	14-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	8-Apr-09	2	< 0.9	< 0.8	< 0.8	J 1.0	< 1.0
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
MW-28s							
Dilution factor for BTEX 5	21-Jun-06	2	J 1.6	560.0	< 1.0	1,400	100
Dilution factor for Xylene is 5, DEHP is 10	13-Sep-06	3	J 0.2	210.0	< 0.2	450	570
Dilution factor for Xylene is 5, DEHP is 10	13-Sep-06	3 duplicate	J 0.3	220.0	< 0.2	470	550
Dilution factor for DEHP 10	7-Nov-06	4	< 0.2	92.0	< 0.2	180	250
Dilution factor for DEHP is 20	7-Feb-07	1	< 1.0	70.0	< 5.0	150	260
Dilution factor for DEHP is 20	7-Feb-07	1 duplicate	< 1.0	58.0	< 5.0	130	250
	27-Jun-07	2	< 1.0	30.0	< 5.0	56	28
Dilution factor for DEHP is 5	12-Sep-07	3	< 1.0	17.0	< 5.0	42	49
Dilution for DEHP is 1.2	6-Dec-07	4	< 1.0	32.0	< 5.0	96	14
Dilution for DEHP is 20	20-Feb-08	1	< 1.0	14.0	< 5.0	36	39
Dilution for DEHP is 11.1	7-May-08	2	< 1.0	2.7	< 5.0	6.6	160
Dilution for DEHP is 20	23-Jul-08	3	< 1.0	37	< 5.0	93	420
Dilution for DEHP is 10	23-Jul-08	3 duplicate	< 1.0	41	< 5.0	100	290
Dilution factor for DEHP 10	29-Oct-08	4	< 0.2	4.3	< 0.2	15	300
Dilution factor for DEHP 10	15-Jan-09	1	< 0.9	17	< 0.8	64	140
Dilution factor for DEHP 10	8-Apr-09	2	< 0.9	39	< 0.8	100	200
Dilution factor for DEHP 10	22-Jul-09	3	< 0.9	18	< 0.8	53	180
MW-28i							
Dilution factor for BTEX 5	22-Jun-06	2	< 1.0	480.0	< 1.0	1,300	270
Dilution factor for Xylene and DEHP is 5	13-Sep-06	3	< 0.2	72.0	J 0.6	520	180
	7-Nov-06	4	< 0.2	10.0	< 0.2	14	90
Dilution factor for DEHP is 10	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	76
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	39
	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	21
Dilution for DEHP is 1.3	6-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	1.4

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MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
Dilution for DEHP is 5	20-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	31
Dilution for DEHP is 1.11	7-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	28
	23-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	49
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	110
	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	61
	15-Jan-09	1 duplicate	< 0.9	< 0.8	< 0.8	< 0.9	41
Dilution factor for DEHP 10	8-Apr-09	2 (5)	< 0.9	< 0.8	< 0.8	< 0.9	240
	22-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	19
MW-29s							
	22-Jun-06	2	< 0.2	J 0.2	< 0.2	J 0.6	J 1.0
	14-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	J 1.0
	9-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	31
	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Deilution for DEHP 1.2	5-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.05 [DUP-02]	19-Feb-08	1 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.18	7-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	J 0.3	< 0.6	< 1.0
	29-Oct-08	4 duplicate	< 0.2	< 0.2	J 0.2	< 0.6	< 0.9
	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	7-Apr-09	2 (4)	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
MW-30s							
	21-Jun-06	2	< 1.0	1,200	J 1.3	3,900	740
Dilution factor for BTEX 20, DEHP is 500	13-Sep-06	3	< 4.0	1,200	46.0	5,100	19,000
Dilution factor for BTEX 5, DEHP is 100	9-Nov-06	4	< 1.0	540	< 1.0	2,600	2,500
	7-Feb-07	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
Dilution factor for BTEX 5, DEHP is 2000	26-Jun-07	2	2.1	300	< 25	1,200	13,000
Dilution factor for DEHP is 50	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	880
Dilution factor for DEHP is 200	12-Sep-07	3 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	1,700
Dilution factor for DEHP is12, BTEX is 5	6-Dec-07	4	1.5	34.0	110	260	200
Dilution factor for DEHP is 111, BTEX is 5	20-Feb-08	1	< 5.0	110	< 25	480	3,800
Dilution factor for Total Xylene is 5, DEHP is 1.25	8-May-08	2	< 1.0	100	< 5.0	460	9.6
	22-Jul-08	3	< 1.0	14	< 5.0	86	80
DEHP dilution 5	29-Oct-08	4	< 0.2	80	J 0.2	290	180
	15-Jan-09	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
Dilution factor for DEHP is 50	8-Apr-09	2	< 0.9	74	< 0.8	340	1,100
Dilution factor for DEHP is 10	22-Jul-09	3	< 0.9	8	< 0.8	34	550
MW-30i							
	21-Jun-06	2	J 0.3	38	1.4	170	J 2.0
	13-Sep-06	3	< 0.2	1.5	< 0.2	4.9	19
	8-Nov-06	4	< 0.2	J 0.2	< 0.2	< 0.6	J 1.0
	8-Nov-06	4 duplicate	< 0.2	J 0.2	< 0.2	< 0.6	< 1.0
	7-Feb-07	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	1.3
Dilution factor for DEHP 1.2	6-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
Dilution factor for DEHP 1.05	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.05	7-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.18	7-May-08	2 duplicate	< 1.0	< 1.0	< 5.0	< 3.0	< 1.2
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	J 2.0
	15-Jan-09	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
	8-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	J 3
	23-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	J 2
	23-Jul-09	3 duplicate	< 0.9	< 0.8	< 0.8	< 0.9	J 3

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MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
MW-30d							
	21-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	J 3.0
	14-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	J 9.0
	8-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
	7-Feb-07	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.1	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.1
Dilution factor for DEHP 1.1	4-Dec-07	4 duplicate	< 1.0	< 1.0	7.7	< 3.0	< 1.1
Dilution factor for DEHP 1.05	19-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
Dilution factor for DEHP 1.05	7-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
	15-Jan-09	1	NS - frozen	NS - frozen	NS - frozen	NS - frozen	NS - frozen
	8-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
MW-31s							
Dilution factor for BTEX 500, DEHP 83.5	8-May-08	2	< 500	5,500	< 2,500	27,000	310
Dilution factor for Benzene & Toluene 20, Ethylbenzene and Xylenes 250, DEHP 500	23-Jul-08	3	< 20	9,000	< 100	49,000	16,000
Dilution factor for BTEX 50, DEHP 10	30-Oct-08	4	< 10	7,900	< 10	40,000	760
Dilution factor for Benzene & Toluene 10, Ethylbenzene and Xylenes 100, DEHP 50	14-Jan-09	1	< 0.9	4,400	J 46	25,000	3,100
Dilution factor for BTE 10 and Xylenes 100, DEHP 10	9-Apr-09	2	< 9	2,300	< 8	9,600	690
Dilution factor for Benzene & Toluene 5, Ethylbenzene and Xylene 50, DEHP 500	23-Jul-09	3	J 5	4,500	J 10	22,000	23,000
MW-32s							
Dilution factor for BTEX 200, DEHP 121000	8-May-08	2	< 200	16,000	< 1,000	75,000	370,000
Dilution factor for Benzene & Toluene 50, Ethylbenzene and Xylenes 250, DEHP 200	23-Jul-08	3	< 50	8,600	< 250	43,000	7,900
BTE 5, Xylenes 10, DEHP 100	30-Oct-08	4	J 1.1	1,200	J 1.7	6,900	4,600
Dilution for BTE 50, Xylene 500, DEHP 500	15-Jan-09	1	< 45	8,900	< 40.0	40,000	12,000
Dilution for Benzene & Ethylbenzene 20, Toluene & Xylenes 200, DEHP 100	8-Apr-09	2	< 18	8,200	< 16.0	50,000	8,600
Dilution factor for BTE 50, Xylene & DEHP 200	23-Jul-09	3	< 45	7,400	< 40.0	43,000	5,400
MW-33s							
Dilution factor for DEHP 1.25	8-May-08	2	4	6.6	< 5.0	27	16
	23-Jul-08	3	1.8	< 1.0	< 5.0	3.3	21
Dilution factor for DEHP 50	30-Oct-08	4	J 0.4	J 0.6	J 0.3	< 3.0	5,500
Dilution factor for DEHP 200	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	3,400
Dilution factor for DEHP 50	9-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	1,100
Dilution factor for DEHP 500	23-Jul-09	3	< 0.9	< 0.8	< 0.8	J 2.0	81,000
MW-34s							
Dilution factor for Ethylbenzene and Total Xylenes 5, DEHP 1.33	6-May-08	2	1.3	230	< 5.0	1,200	3.0
Dilution factor for BTEX 20	23-Jul-08	3	< 20	470	< 100.0	2,300	1.6
	30-Oct-08	4	< 0.2	2	< 0.2	180	7
Dilution factor for BTE 10, Xylene 100	15-Jan-09	1	< 9	2,700	J 16.0	13,000	7
Dilution for Benzene & Toluene 10, Ethylbenzene & Xylenes 100, DEHP 100	8-Apr-09	2	< 9	3,600	J 18.0	18,000	J 5
Dilution for Benzene & Toluene 2, Ethylbenzene & Xylenes 20	23-Jul-09	3	< 2	1,300	J 5.0	6,700	9
MW-35s							
Dilution factor for Ethylbenzene and Total Xylenes 500, DEHP 57	6-May-08	2	1.3	230	< 5.0	1,200	490
Dilution factor for Benzene & Toluene 10, Ethylbenzene and Xylenes 250, DEHP 20	23-Jul-08	3	16	12,000	260.0	67,000	530
Dilution factor for Xylenes 100, Benzene 20, Toluene 20, Ethlbenzene 100, DEHP 10	30-Oct-08	4	J 9.6	8,800	34.0	57,000	460
Dilution factor for Benzene and Toluene 20, Ethylbenzene, Xylene and DEHP 200	15-Jan-09	1	< 18	12,000	J 36.0	88,000	3,500
Dilution factor for Benzene and Toluene 20, Ethylbenzene& Xylene 200, DEHP 50	8-Apr-09	2	< 18	13,000	J 40.0	100,000	1,800
Dilution factor for Benzene & Toluene 20, Ethylbenzene and Xylene 200, DEHP 500	23-Jul-09	3	< 18	14,000	J 36.0	92,000	20,000
Atmospheric Blank	13-Jan-05	1	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	8-Apr-05	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	26-Jul-05	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	27-Oct-05	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	28-Feb-06	1	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0

TABLE 1
GROUNDWATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
	20-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	12-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	8-Feb-07	1	< 1.0	< 1.0	J 1.9	< 3.0	< 1.0
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	11-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	5-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
ATM-01	20-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
ATM-01, Dilution factor for DEHP 1.08	6-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.1
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	28-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	14-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	8-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
	22-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
Rinsate Blank							
	14-Jan-05	1	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	9-Apr-05	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	27-Jul-05	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	27-Oct-05	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	28-Feb-06	1	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	21-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	22-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	13-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	14-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	9-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	9-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
	8-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	8-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	10-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	12-Sep-07	3	< 1.0	< 1.0	< 5.0	< 3.0	1.1
	6-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	2.7
	6-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
RB-02	20-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
RB-03	20-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
	5-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
RB-02	23-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
RB-03	23-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	< 1.0
RB-02	30-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 0.9
RB-03	30-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	< 1.0
RB-01	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
RB-02	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
RB-01	9-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
RB-02	9-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	< 1.0
RB-01	23-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	< 0.9
RB-02	23-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	J 2.0
Trip Blank							
	13-Jan-05	1	< 0.2	< 0.2	< 0.2	< 0.6	NA
	9-Apr-05	2	< 0.2	< 0.2	< 0.2	< 0.6	NA
	27-Jul-05	3	< 0.2	< 0.2	< 0.2	< 0.6	NA
	27-Oct-05	4	< 0.2	< 0.2	< 0.2	< 0.6	NA
	28-Feb-06	1	< 0.2	< 0.2	< 0.2	< 0.6	NA
	20-Jun-06	2	< 0.2	< 0.2	< 0.2	< 0.6	NA
	12-Sep-06	3	< 0.2	J 0.2	< 0.2	< 0.6	NA
	13-Sep-06	3	< 0.2	< 0.2	< 0.2	< 0.6	NA
	6-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	NA
	7-Nov-06	4	< 0.2	< 0.2	< 0.2	< 0.6	NA

TABLE 1
GROUNDWATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS						
	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	bis-2-Ethylhexylphthalate (DEHP)
		UNITS	ug/l	ug/l	ug/l	ug/l	ug/l
		SOLUBILITY LIMIT	1,700,000	152,000	515,000	175,000	334
		PRACTICAL QUANTITATION LIMIT [PQL]	1	2	1	2	3
		NEW JERSEY GROUNDWATER QUALITY STANDARDS (NJGWQS) CLASS IIA	0.2	700	1,000	1,000	2
		HIGHER OF NJGWQS AND PQL	1	700	1,000	1,000	3
	7-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	NA
	8-Feb-07	1	< 1.0	< 1.0	< 5.0	< 3.0	NA
	27-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	NA
	26-Jun-07	2	< 1.0	< 1.0	< 5.0	< 3.0	NA
	4-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	NA
	5-Dec-07	4	< 1.0	< 1.0	< 5.0	< 3.0	NA
	18-Feb-08	1	< 1.0	< 1.0	< 5.0	< 3.0	NA
	5-May-08	2	< 1.0	< 1.0	< 5.0	< 3.0	NA
	22-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	NA
	23-Jul-08	3	< 1.0	< 1.0	< 5.0	< 3.0	NA
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	NA
	29-Oct-08	4	< 0.2	< 0.2	< 0.2	< 0.6	NA
	15-Jan-09	1	< 0.9	< 0.8	< 0.8	< 0.9	NA
	5-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	NA
	7-Apr-09	2	< 0.9	< 0.8	< 0.8	< 0.9	NA
	21-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	NA
	23-Jul-09	3	< 0.9	< 0.8	< 0.8	< 0.9	NA

LEGEND

ug/L = micrograms per liter

NJGWQS = New Jersey Groundwater Quality Standards

ROD: Record of Decision

NA: Not Applicable

NS: Not Sampled

ND: No Detection

duplicate = Duplicate sample

Concentration exceeds NJGWQS (1.2)

B: Analyte also detected in blank

J: Estimated value. Value is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

NOTES

(1) Low flow sampling initiated 1st quarter 2002

(2) GEI series wells are piezometers installed by Weston

(3) GEI series wells, MW-19-3, and MW-19-4 are not sampled under revised groundwater monitoring program effective 1Q05.

(4) Recovery of initial DEHP analysis was above QC limits in the LCS. Sample was re-extracted and DEHP was again above the QC limits in the LCS/LCSD. However, DEHP was not detected in the re-analysis of the sample. The data reported here is from the re-analysis of the sample.

(5) Recovery of initial DEHP analysis was above QC limits in the LCS. Sample was re-extracted and DEHP was again above the QC limits in the LCS/LCSD. Comparable data was observed beween the two extractions. The data reported here is from the initial extraction of the sample.

TABLE 2

Through 3rd Quarter 2009

QUARTERLY GROUNDWATER MONITORING MNA ANALYTICAL DATA

Dayco Corporation/L.E. Carpenter and Co. Superfund Site

Borough of Wharton, New Jersey

USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
MW-19	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	80	30	589	ND	ND	0.054	3.6 J	150	NS
	3Q04	630	30.9	553	ND	ND	0.12	1.7 J	230	NS
	1Q05	350	17.2	347	0.22	ND	ND	7.4	230	NS
	2Q05[L]	390	10.8 J	413	2.8	ND	ND	33.3	3.0 J	NS
	2Q05[U]	1,400	15	455	3	ND	ND	30	2.0 J	NS
	3Q05	3	67	1,070	0	1.3	ND	6	33	NS
	4Q05	120	23	620	1	0.88	ND	37	19	NS
	1Q06	25	36	559	ND	ND	ND	3.3 J	140	NS
	2Q06	56	44	460	ND	0.43 J	ND	3.2 J	95	ND
Dilution factor for Methane 5	3Q06	60	13	435	ND	0.43 J	ND	5	310	ND
Dilution factor for Methane 100	4Q06	20	16	411	ND	ND	0	2.9 J	1,700	ND
	1Q07	140	7	340	ND	ND	ND	ND	540	ND
	2Q07	180	20	1,100	ND	0.62	ND	ND	380	ND
	3Q07	1,200	23	710	ND	0.76	0	ND	300	ND
	4Q07	FS	30	500	ND	0.64	0	ND	680	ND
	1Q08	150	3.6	190	2	ND	ND	25	ND	ND
Dilution factor for Dissolved Lead 5	2Q08	1,900	26	1,200	ND	0.52	ND	ND	650	ND
	3Q08	740	6.2	620	ND	0.57	ND	ND	510	ND
Dilution for methane 50	4Q08	120	8.0 J	662	ND	0.60	0.14	ND	4,000	ND
Dilution for methane 10	1Q09	13	25.2	356	ND	ND	ND	3.6 J	2,200	ND
Dilution for methane 50	2Q09	36	12.8	670	ND	ND	ND	2.4 J	4,800	ND
	3Q09	25	11.2 J	353	ND	ND	ND	ND	5,300	ND
MW-19-4	1Q06	12	ND	730	2.4	ND	ND	37.4	ND	NS
	2Q06	520	8.4 J	774	2.8	ND	ND	45.8	ND	ND
Dilution factor for Nitrate 5	3Q06	85	ND	740	4.8	ND	ND	50.9	ND	ND
Dilution factor for Nitrate 5	3Q06D	92	ND	733	4.9	ND	ND	50.1	ND	ND
	4Q06	29	ND	529	3	ND	ND	47.1	ND	ND
	1Q07	54	3	340	1.7	ND	ND	37	ND	ND
	2Q07	110	1.4	1,100	1.7	ND	ND	29	ND	ND
	3Q07	160	1.2	660	1.8	ND	ND	40	ND	ND
	3Q07D	160	ND	660	1.8	ND	ND	40	ND	ND
	4Q07	FS	1.3	710	2.6	ND	ND	38	ND	ND
	4Q07D	FS	ND	730	2.6	ND	ND	38	ND	ND
	1Q08	270	1.2	790	1.8	ND	ND	24	ND	ND
	2Q08	100	2.1	860	1.1	ND	ND	32	ND	ND
	2Q08D	80	2.1	870	1.1	ND	ND	32	ND	ND
	3Q08	45	1	660	0.73	ND	ND	33	ND	ND
	4Q08	150	ND	691	1.6	ND	ND	44.7	ND	0.0142 J
	1Q09	31	ND	840	1.8	ND	ND	37.9	ND	ND
	2Q09	4000	4.4 J	1690	1.3	ND	ND	25	ND	ND
	3Q09	160	ND	880	1.6	ND	ND	38.2	ND	ND
MW-19-5	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3Q04	180	14	942	0.06 J	ND	ND	15.7	2100	NS
	1Q05	380	3.6 J	174	0.49	ND	ND	15.8	34	NS
	2Q05[L]	3000	3.6 J	177	ND	ND	ND	12	380	NS
	2Q05[U]	100	3.6 J	141	0.43	ND	ND	8.7	ND	NS
	3Q05	69	6.8 J	463	ND	ND	ND	7.7	1700	NS
	4Q05	58	ND	144	0.38	ND	ND	12.8	3.8 J	NS
	1Q06	12	ND	287	0.97 J	ND	ND	11.2	290	NS
	2Q06	22	9.2 J	190	0.19	ND	ND	14.2	150	ND
Dilution factor for Methane 10	3Q06	30	ND	275	0.12	ND	ND	10.2	700	ND
Dilution factor for Methane 10	4Q06	620	ND	236	0.1	ND	ND	10.9	640	ND
	1Q07	240	7	340	ND	0.51	ND	ND	500	0.011
	2Q07	91	18	350	ND	0.13	ND	ND	570	ND
Dilution factor for Methane 4	3Q07	110	7.8	360	ND	ND	ND	ND	840	ND
	4Q07	FS	5.1	240	0.13	0.14	0.12	7.8	370	ND
	1Q08	380	1.9	120	0.16	ND	ND	7.2	ND	ND
	1Q08D	170	1.8	120	0.15	ND	ND	7.2	ND	ND
	2Q08	560	3.3	370	0.15	ND	ND	13	340	ND
Dilution factor for Methane 4	3Q08	100	16	560	ND	0.3	ND	ND	1,500	ND
	4Q08	46	ND	164	0.35	ND	ND	15.1	59	ND
Dilution factor for Methane 2	1Q09	33	ND	143	0.047 J	ND	ND	11	530	ND
Dilution factor for Methane 5	2Q09	27	ND	250	0.069 J	ND	ND	6.4	1,300	ND

TABLE 2

Through 3rd Quarter 2009

QUARTERLY GROUNDWATER MONITORING MNA ANALYTICAL DATA

Dayco Corporation/L.E. Carpenter and Co. Superfund Site

Borough of Wharton, New Jersey

USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
Dilution factor for Methane 5	2Q09D	110	ND	250	0.071 J	2.6	ND	6.4	1,400	ND
Dilution factor for Methane10	3Q09	25	3.2 J	399	ND	ND	ND	6.7	3400	ND
MW-19-6	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	35	10.4 J	1670	1.6	ND	ND	37.3	140	NS
	3Q04	110	18.8	1240	1.1	ND	0.062	38.3	140	NS
	1Q05	82	11.2 J	544	1.7	ND	ND	44	130	NS
	2Q05[L]	23	18	1180	1.3	0.29 J	ND	33.5	44	NS
	2Q05[U]	160	ND	1190	1	ND	ND	32.7	96	NS
	3Q05	90	40.8	1520	1.1	ND	ND	35	38	NS
	4Q05	43	10.8 J	940	3.5	ND	ND	47.8	43	NS
	1Q06	14	4.4 J	634	1.8	ND	ND	36.6	50	NS
	2Q06	14	ND	802	2	ND	ND	38.3	44	ND
	2Q06D	15	ND	790	2	ND	ND	37.7	45	ND
	3Q06	75	4.4 J	682	2.6	ND	ND	37.1	32	ND
	4Q06	240	ND	574	2.3	ND	ND	38.3	31	ND
	1Q07	62	5.3	490	2.4	ND	ND	34	21	ND
	2Q07	70	8.7	1900	2.9	ND	ND	48	230	ND
	3Q07	100	2.6	820	2	ND	ND	40	68	ND
	4Q07	FS	3.2	710	2.3	ND	ND	36	87	ND
	1Q08	120	2.6	650	1.1	ND	ND	28	78	ND
	2Q08	22	2.9	1200	1.9	ND	ND	32	27	ND
	3Q08	140	6.2	1400	1.3	ND	ND	34	140	ND
	4Q08	31	ND	938	2.9	ND	ND	36.4	110	ND
	1Q09	8	ND	600	1.5	ND	ND	32.2	89	ND
	2Q09	15	3.6 J	1380	2.2	ND	ND	37.4	140	ND
	3Q09	6	4.0 J	938	1.5	ND	ND	36.1	230	ND
MW-19-7	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	110	6.8 J	2110	0.21	ND	ND	47.2	5200	NS
	2Q04D	88	9.2 J	2040	0.21	0.15 J	ND	37.3	5400	NS
	3Q04	2000	4.4 J	1920	1.5	ND	ND	64.4	2400	NS
Dilution factor for Methane 250	1Q05	75	6.0 J	774	3.2	ND	ND	29.1	10000	NS
Dilution factor for Methane 250	1Q05D	77	7.2 J	754	3.2	ND	ND	30.5	11000	NS
	2Q05[L]	32	54	472	ND	0.50 J	0.45	ND	13000	NS
	2Q05[U]	41	48	481	ND	0.35 J	0.32	ND	10000	NS
	3Q05[L]	17	45.6	1450	ND	ND	0.3	19.2	2900	NS
	3Q05[U]	17	31.6	1280	0.22	0.29 J	0.1	25.7	1600	NS
Dilution factor for Methane 250	4Q05	16	32	926	0.16	0.5	0.23	8.9	7700	NS
	1Q06	14	33.2	621	ND	ND	0.3	2.2 J	10000	NS
	1Q06D	10	36.8	628	ND	ND	0.3	1.6 J	10000	NS
Dilution factor for Methane 200	2Q06	68	16.8	655	0.87	ND	0.16	12.9	11000	ND
Dilution factor for Methane 100	3Q06	79	9.2 J	799	2.1	ND	0.15	15.1	8600	ND
Dilution factor for Methane 100	4Q06	600	4.4 J	568	3.4	ND	ND	31.3	5600	ND
Dilution factor for Methane 4	1Q07	38	18	420	0.59	ND	0.31	11	1200	ND
Dilution factor for Methane 5	1Q07D	40	19	440	0.69	ND	0.31	12	1300	ND
	2Q07	130	4.4	610	0.25	ND	ND	12	530	ND
	3Q07	890	1.8	590	0.39	ND	ND	16	120	ND
	4Q07	FS	2.2	1200	2.6	0.23	ND	21	170	ND
	1Q08	180	6.7	1600	3.2	ND	ND	24	300	ND
	2Q08	52	6.8	1100	0.24	0.12	ND	17	430	ND
	3Q08	340	15	560	ND	0.11	0.11	ND	400	ND
Dilution factor for Methane 5	4Q08	270	3.25	617	1.1	ND	ND	20	550	ND
Dilution factor for Methane 5	4Q08D	110	ND	625	1.1	ND	ND	20.6	570	ND
	1Q09	34	4.0 J	2260	1.9	ND	ND	31.9	280	ND
	2Q09	98	23.6	3010	1.1	ND	ND	31.2	400	ND
	3Q09	250	5.2 J	1250	0.33	ND	ND	29	740	ND
MW-19-12	2Q06	4000	11.2 J	548	0.048 J	ND	ND	15.1	4.8 J	ND
Dilution factor for Methane 5	3Q06	170	6.4 J	822	0.36	ND	ND	22.9	170	ND
	4Q06	2	4.4 J	716	0.22	ND	ND	21.3	130	ND
	4Q06D	2	ND	718	0.17	ND	ND	21.8	130	ND
	1Q07	4	5.5	400	0.56	0.12	ND	20	ND	ND
	2Q07	55	ND	240	0.93	ND	ND	13	ND	ND
	2Q07D	8	ND	270	0.93	ND	ND	13	ND	ND
	3Q07	73	ND	290	0.89	ND	ND	13	ND	ND
	4Q07	FS	3	260	0.9	ND	ND	11	ND	ND

TABLE 2
QUARTERLY GROUNDWATER MONITORING MNA ANALYTICAL DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
	1Q08	9	ND	160	0.84	ND	ND	5.7	ND	ND
	2Q08	ND	1.1	220	1	ND	ND	10	ND	ND
	3Q08	2	1.7	220	0.72	ND	ND	8.1	ND	ND
	4Q08	7	ND	269	0.79	ND	ND	16.6	ND	ND
	1Q09	4	ND	170	1.1	ND	ND	18.3	ND	ND
	2Q09	320	5.2 J	334	0.94	ND	ND	18.5	ND	ND
	3Q09	18	ND	261	0.9	6.2	ND	13.3	ND	ND
MW-8										
Dilution factor for Methane 10	3Q08	ND	66	300	ND	0.68	0.4	ND	3000	ND
Dilution factor for Methane 20	4Q08	5200	33.6	94.5	ND	0.35 J	ND	1.9 J	1800	ND
Dilution factor for Methane 10	1Q09	51	56.8	270	ND	0.64	0.16	ND	2600	ND
Dilution factor for Methane 50	2Q09	450	28	174	ND	ND	ND	ND	6100	ND
	3Q09	75	40	407	ND	ND	0.13	2.5 J	2400	ND
MW-25R	2Q06	1100	18.8	340	ND	0.24 J	ND	2.9 J	140	ND
	3Q06	>5700	279	329	ND	0.24 J	0.14	3.3 J	30	ND
	4Q06	1000	16.8	331	ND	ND	ND	6.2	25	ND
	1Q07	240	49	300	ND	0.12	ND	ND	29	ND
	2Q07	>5700	100	340	ND	0.15	ND	5.9	33	ND
	2Q07D	>5700	100	350	ND	0.11	ND	6.4	32	ND
	3Q07	>5700	10	260	ND	ND	ND	14	ND	ND
	4Q07	FS	490	380	ND	0.41	0.43	10	ND	ND
	1Q08	>5700	140	360	ND	0.13	0.17	5.4	55	ND
	2Q08	>5700	200	330	ND	0.15	0.23	ND	130	ND
	3Q08	ND	68	380	ND	0.14	ND	ND	12	ND
	4Q08	>5700	ND	243	ND	ND	ND	16	3.5 J	ND
	1Q09	1500	36.8	344	ND	ND	ND	36.5	57	ND
	2Q09	>5700	98.8	362	ND	ND	ND	9.4	7.6 J	ND
	3Q09	2100	32.4	412	ND	ND	ND	8.5	100	ND
MW-27s	2Q06	NR	5180	630	ND	0.26 J	4.8	43.3	20	ND
	3Q06	>5700	3850	798	ND	ND	1.4	108	3.7 J	ND
	4Q06	>5700	166	753	0.16	ND	0.82	116	2.3 J	ND
	1Q07	>5700	580	650	ND	ND	0.19	91	ND	ND
	2Q07	>5700	48	640	ND	ND	3.5	97	ND	ND
	3Q07	270	150	630	ND	ND	0.12	84	ND	ND
	4Q07	FS	260	620	0.16	0.45	ND	87	22	ND
	1Q08	>5700	850	530	0.65	ND	0.74	78	ND	ND
	2Q08	>5700	770	490	0.19	ND	0.91	67	ND	ND
Dilution factor for Phosphorus 5	3Q08	560	1,400	620	ND	0.14	17	61	11	ND
	4Q08	390	66.4	571	0.2	ND	.085 J	68.8	ND	ND
	1Q09	190	1,200	517	0.55	ND	0.27	62.5	ND	0.0283
	2Q09	81	253	454	0.96	ND	ND	52.6	ND	ND
	3Q09	8	684	482	0.38	ND	ND	43.9	ND	ND
MW-28s	2Q06	6	35.2	350	ND	0.35 J	0.25	2.6 J	3100	ND
Dilution factor for Methane 200	3Q06	1,300	22	460	ND	0.26 J	0.37	ND	3,200	ND
Dilution factor for Methane 200	3Q06D	1,500	22	468	ND	ND	0.37	1.7J	3,100	ND
Dilution factor for Methane 100	4Q06	1	25	347	ND	ND	0.43	2.0 J	4,400	ND
	1Q07	460	180	350	ND	ND	0.42	ND	170	ND
	1Q07D	230	93	360	ND	ND	0.43	ND	810	0.0051
Dilution factor for Methane 10	2Q07	78	49	400	ND	0.14	0.34	ND	1,600	ND
Dilution factor for Methane 4	3Q07	ND	50	350	ND	ND	0.34	ND	1,100	ND
Dilution for Methane is 40	4Q07	320	42	330	ND	0.19	0.38	ND	1,900	ND
	1Q08	80	31	250	ND	0.14	0.36	ND	570	ND
Dilution for Methane is 10	2Q08	11	44	360	ND	0.19	ND	ND	1,400	ND
Dilution factor for Methane 4	3Q08	ND	52	340	ND	0.17	0.4	ND	0.86	0.0056
Dilution factor for Methane 20	4Q08	82	23.6	321	ND	ND	0.31	2.3 J	1,800	ND
Dilution factor for Methane 200	1Q09	9	38.4	356	ND	0.27 J	0.32	ND	5,000	ND
Dilution factor for Methane 5	2Q09	530	6.0 J	327	ND	ND	0.24	5.8	1,000	ND
Dilution factor for Methane 50	3Q09	2	28.8	679	ND	0.36 J	0.26	ND	5,200	ND
MW-28i										
Dilution factor for Methane 10	2Q06	290	28	367	0.047 J	ND	0.22	2.2 J	1900	ND
Dilution factor for Methane 100	3Q06	>5,700	42.8	338	ND	ND	0.19	3.5 J	1500	ND
Dilution factor for Methane 100	4Q06	440	15.6	335	ND	ND	0.22	3.0 J	1500	ND
	1Q07	110	34	380	0.1	0.2	0.35	ND	410	ND

TABLE 2

Through 3rd Quarter 2009

QUARTERLY GROUNDWATER MONITORING MNA ANALYTICAL DATA

Dayco Corporation/L.E. Carpenter and Co. Superfund Site

Borough of Wharton, New Jersey

USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
Dilution factor for Methane 4	2Q07	24	23	330	ND	0.27	0.29	ND	710	ND
	3Q07	37	37	300	ND	0.28	0.27	ND	560	ND
	4Q07	160	34	360	ND	0.47	0.64	5.1	370	ND
	1Q08	ND	25	290	ND	0.37	0.29	ND	170	ND
Dilution factor for Methane 10	2Q08	17	38	560	ND	0.31	0.23	ND	870	ND
	3Q08	51	29	310	ND	0.25	280	ND	410	ND
Dilution factor for Methane 5	4Q08	24	20.8	360	ND	0.54 J	0.23	6.7	500	ND
Dilution factor for Methane 10	1Q09	3	31.6	399	ND	.42 J	0.27	ND	1800	ND
Dilution factor for Methane 10	1Q09D	4	35.2	415	ND	0.54 J	0.26	ND	1700	ND
	2Q09	89	13.6	351	ND	ND	0.22	7.7	110	ND
Dilution factor for Methane 10	3Q09	ND	20	542	ND	1.1	0.21	2.6 J	2100	ND
MW-29s	2Q06	250	58.8	504	ND	11.9	0.45	4.0 J	1200	ND
Dilution factor for Methane 250	3Q06	>5700	54	546	ND	9.9	0.32	1.9 J	5000	ND
Dilution factor for Methane 100	4Q06	190	35.6	509	ND	8.3	0.29	3.9 J	5200	ND
	1Q07	30	41	510	0.14	7.5	0.34	ND	450	0.0084
Dilution factor for Methane 4	2Q07	150	56	490	ND	8.3	0.29	ND	1000	ND
Dilution factor for Methane 10	3Q07	1900	54	520	ND	8.1	0.4	ND	2500	ND
Dilution for Methane 10	4Q07	FS	66	500	ND	9.3	0.44	ND	3100	0.014
Dilution for Lead 5	1Q08	93	60	510	ND	7.5	0.34	ND	2000	ND
Dilution for Lead 5	1Q08D	120	38	510	ND	7.6	0.35	ND	1800	ND
Dilution for Methane 10	2Q08	65	40	490	ND	8.2	0.3	ND	2100	ND
Dilution factor for Methane 4	3Q08	130	20	460	ND	7.7	0.41	ND	1,700	ND
Dilution factor for Methane 50	4Q08	52	37.2	455	ND	7.2	0.35	ND	4,400	ND
Dilution factor for Methane 50	4Q08D	56	41.6	462	ND	7.2	0.34	ND	4,600	ND
Dilution factor for Methane 200	1Q09	1600	58.8	425	ND	7.2	0.32	3.0 J	6,100	ND
Dilution factor for Methane 50	2Q09	200	58	464	ND	5.8	0.28	7.3	4,000	ND
Dilution factor for Methane 100	3Q09	21	47.2	542	ND	7.5	0.31	3.3 J	4,800	ND
MW-30s	2Q06	2200	75.6	348	ND	0.86	0.17	5.2	3800	ND
Dilution factor for Methane 200	3Q06	>5700	132	457	ND	0.89	0.32	ND	2500	ND
Dilution factor for Methane 100	4Q06	>5700	147	448	ND	1.1	0.24	5.5	6500	ND
Dilution factor for Methane 10	2Q07	>5700	650	350	ND	0.94	1.6	ND	1800	ND
Dilution factor for Methane 4	3Q07	>5700	220	440	ND	1	0.34	ND	1700	ND
Dilution factor for Methane 4	3Q07D	>5700	180	400	ND	1.1	0.33	ND	1500	ND
Dilution factor for Methane 10	4Q07	>5700	120	520	ND	1.3	0.22	ND	1900	ND
Dilution factor for Methane 4	1Q08	1,100	2,300	410	ND	0.97	1.2	ND	1,300	ND
Dilution factor for Methane 10	2Q08	>5700	36	320	ND	0.93	0.26	ND	1,700	ND
Dilution factor for Methane 4	3Q08	ND	36	390	ND	2.60	0.29	ND	1,800	ND
Dilution factor for Methane 50	4Q08	2,300	18	401	ND	1.30	0.19	ND	4,100	ND
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
Dilution factor for Methane 20	2Q09	210	40	464	ND	1.3	0.14	2.0 J	3,700	ND
Dilution factor for Methane 50	3Q09	720	38.8	461	ND	1.6	0.21	ND	4,200	ND
MW-30i	2Q06	>5700	18.8	369	ND	1.8	0.15	8.2	1100	ND
Dilution factor for Methane 100	3Q06	290	41.6	414	ND	0.83	0.23	3.2 J	1200	ND
Dilution factor for Methane 50	4Q06	40	17.2	456	ND	0.89	0.24	11.1	930	ND
Dilution factor for Methane 50	4Q06D	43	41.2	478	ND	ND	0.23	11.1	930	ND
Dilution factor for Methane 4	2Q07	36	34	300	ND	0.8	0.31	ND	680	ND
	3Q07	ND	41	430	ND	1	0.33	ND	97	ND
	4Q07	470	69	530	ND	1.1	0.45	ND	ND	ND
	1Q08	2	33	410	ND	1.2	0.34	ND	370	ND
	2Q08	23	27	540	ND	1	ND	ND	510	ND
	2Q08D	16	26	300	ND	1	0.29	ND	560	ND
Dilution factor for Methane 4	3Q08	ND	31	390	ND	1.3	0.38	ND	790	ND
Dilution factor for Methane 5	4Q08	6	21.6	411	ND	1.4	0.27	4.4 J	400	ND
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q09	670	36.8	474	ND	1.3	0.19	5.9	270	ND
Dilution factor for Methane 2, Ammonia Nitrogen 2	3Q09	5	28.0	431	ND	1.3	0.26	4.3 J	660	ND
Dilution factor for Methane 2	3Q09D	6	24.8	444	ND	0.72	0.25	4.2 J	730	ND
MW-30d	2Q06	2800	11.6	248	ND	0.30 J	ND	9.7	45	ND
	3Q06	>5700	6.4 J	288	0.043 J	ND	ND	10.6	5.3	ND
	4Q06	47	5.6 J	375	ND	ND	ND	12.5	22	ND
	2Q07	130	13	240	ND	0.11	ND	10	77	ND
	3Q07	78	9	260	ND	0.16	ND	11	ND	ND
	4Q07	FS	20	300	ND	0.24	0.11	11	ND	ND

TABLE 2

Through 3rd Quarter 2009

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Dayco Corporation/L.E. Carpenter and Co. Superfund Site

Borough of Wharton, New Jersey

USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
	4Q07D	FS	20	270	ND	0.19	0.28	11	ND	ND
	1Q08	790	8	300	ND	0.12	ND	9.4	47	ND
	2Q08	420	12	370	ND	0.27	ND	5.3	140	ND
	3Q08	ND	9.2	280	ND	0.31	0.13	9.2	16	ND
	4Q08	40	9.2 J	309	ND	0.27 J	ND	12.7	ND	ND
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q09	75	9.2 J	324	0.046 J	ND	ND	14.3	5 J	ND
	3Q09	9	6.4 J	321	ND	ND	ND	14.8	60	ND
MW-31s										
Dilution factor for Ammonia and Methane 10	2Q08	>5700	460	810	0.12	22	0.68	44	3000	ND
Dilution factor for Ammonia and Methane 10	3Q08	ND	320	1900	ND	22	0.71	72	2100	ND
Dilution factor for Sulfate 10 and Methane 50	4Q08	> 5700	11.5 J	502	ND	10.8	0.14	84.2	2800	ND
Dilution factor for methane 100	1Q09	620	35.2	629	ND	22.6	0.40	47.9	11000	ND
Dilution factor for Sulfate and Methane 20	2Q09	> 5700	ND	556	0.056 J	6.4	ND	136	2400	ND
Dillution factor for Sulfate 5, and Methane 50	3Q09	6800	36.80	576	ND	19.8	0.12	35.9	12000	ND
MW-32s										
Dilution factor for Methane 10	2Q08	>5700	NS	3400	ND	2	14	8.6	4800	ND
Dilution factor for Methane 10	3Q08	410	NS	650	ND	1.6	2.6	NS	2900	ND
Dilution factor for Sulfate 20 and Methane 100	4Q08	> 5700	50	818	ND	1.6	0.11	200	5400	ND
Dilution factor for Methane 200	1Q09	430	385	637	ND	0.69	ND	8.9	9500	ND
Dilution factor for Sulfate 20 and Methane 100	2Q09	240	35.2	612	0.16	1.8	ND	122	6900	ND
Dillution factor for Ammonia Nitrogen 3 and Methane 50	3Q09	290	113	620	ND	ND	ND	2.8 J	12000	ND
MW-33s										
Dilution factor for Methane 10	2Q08	>5700	220	310	ND	5	0.17	8	2800	0.011
Dilution factor for Methane 10	3Q08	ND	250	380	ND	7	ND	10	2000	ND
Dilution factor for Methane 100	4Q08	> 5700	51	358	ND	7.4	0.13	8.6	4800	ND
Dilution factor for Methane 200	1Q09	160	122	395	ND	ND	ND	68.1	9600	ND
Dilution factor for Methane 50	2Q09	2800	74	410	ND	6.7	0.31	4.8 J	8400	ND
Dilution factor for Ammonia Nitrogen 2 and Methane 25	3Q09	1200	181	610	ND	5.8	0.42	12.9	5100	ND
MW-34s										
Dilution factor for Methane 10	2Q08	>5700	NS	490	ND	ND	ND	12	3700	ND
Dilution factor for Methane 10	3Q08	ND	NS	NS	NS	ND	0.34	NS	2800	NS
Dilution factor for Methane 5	4Q08	2100	ND	693	0.53	0.35 J	ND	23.9	490	ND
Dilution for Ammonia Nitrogen 5, Methane 200	1Q09	NM	NS	NS	ND	ND	ND	NS	7200	ND
Dilution factor for Methane 100	2Q09	NA	26.4	369	0.16	0.38 J	ND	8.7	8600	ND
Dilution factor for Methane 50	3Q09	150	56.4	NS	ND	ND	ND	4.9 J	9600	ND
MW-35s										
Dilution factor for Methane is 10	2Q08	>5700	2100	570	ND	1.8	ND	13	3900	ND
Dilution factor for Methane is 10	3Q08	ND	85	520	ND	1.3	ND	ND	3600	ND
Dilution factor for Methane 100	4Q08	> 5700	22.4 J	568	ND	2.9	0.16	20.6	12000	ND
Dilution factor for Methane 200	1Q09	1800	37.6	499	ND	0.8	.087 J	ND	20000	ND
Dilution factor for Methane 200	2Q09	680	77.6	459	ND	1.1	0.19	9.4	20000	ND
Dilution factor for Methane 100	3Q09	50	114.0	466	ND	1.4	0.25	ND	17000	ND
GEI-2S	3Q07	66	8.0	460	2.2	ND	ND	25	490	ND
	2Q08	57	6.7	650	1.9	ND	ND	34	ND	ND
Dilution factor for Methane 4	3Q08	4	4.0	610	ND	0.11	ND	13	1800	ND
	4Q08	16	ND	302	2.4	ND	ND	23.9	110	ND
	1Q09	7	ND	528	2.4	ND	ND	39.0	ND	ND
	2Q09	3	ND	310	1.4	ND	ND	26.5	57	ND
	3Q09	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry	NS - dry
Atmospheric Blank	1Q05	> 5700	ND	ND	ND	ND	ND	ND	ND	NS
	4Q05	5	ND	10.0 J	ND	ND	ND	0.30 J	ND	NS
	1Q06	2	ND	ND	ND	ND	ND	ND	ND	NS
	2Q06	38	ND	ND	ND	ND	ND	1.5 J	ND	ND*
	3Q06	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	4Q06	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	1Q07	1	ND	ND	ND	ND	ND	ND	22	ND*
	2Q07	ND	ND	19	ND	ND	ND	ND	ND	ND*
	3Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	4Q07	ND	ND	ND	ND	0.16	ND	ND	ND	ND*

TABLE 2

Through 3rd Quarter 2009

QUARTERLY GROUNDWATER MONITORING MNA ANALYTICAL DATA

Dayco Corporation/L.E. Carpenter and Co. Superfund Site

Borough of Wharton, New Jersey

USEPA ID No. NJD002168748

Well ID	Sampling Event	Heterotrophic Plate Count	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate[1]	Methane	Dissolved Lead
	UNITS	cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l
NEW JERSEY GROUNDWATER QUALITY STANDARDS CLASS IIA		NCS	NCS	500	NCS	NCS	NCS	250	NCS	.005[2]
	1Q08	ND	ND	ND	ND	0.16	ND	ND	ND	ND*
	2Q08	ND	ND	ND	ND	ND	ND	ND	ND	0.0051
	3Q08	ND	ND	ND	ND	0.16	ND	ND	ND	ND*
	4Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	1Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	2Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*
Rinsate Blank	1Q05	36	ND	ND	ND	ND	ND	ND	ND	NS
	3Q05	ND	ND	ND	ND	ND	ND	ND	ND	NS
	4Q05	ND	ND	ND	ND	ND	ND	ND	ND	NS
	1Q06	ND	ND	ND	ND	ND	ND	ND	ND	NS
	2Q06	120	ND	ND	ND	ND	ND	ND	ND	ND*
	2Q06	250	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q06	45	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q06	84	ND	ND	ND	ND	ND	ND	ND	ND*
	4Q06	56	ND	ND	ND	ND	ND	ND	ND	ND*
	1Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	1Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	2Q07	1	ND	2.5	ND	ND	ND	ND	ND	ND*
	2Q07	2	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	4Q07	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	4Q07	ND	ND	11	0.17	ND	ND	ND	ND	ND*
	1Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	1Q08	ND	ND	ND	ND	ND	0.15	ND	ND	ND*
	2Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	2Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
	3Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
RB-02	4Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
RB-03	4Q08	ND	ND	ND	ND	ND	ND	ND	ND	ND*
RB-02	1Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*
RB-03	1Q09	26	ND	ND	ND	ND	ND	ND	ND	ND*
RB-01	2Q09	1	ND	ND	ND	ND	ND	ND	ND	ND*
RB-02	2Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*
RB-01	3Q09	32	ND	ND	ND	ND	ND	ND	ND	ND*
RB-02	3Q09	ND	ND	ND	ND	ND	ND	ND	ND	ND*

Notes:

As mentioned in January 13, 2005 letter, only the MW-19 Hotspot wells will be sampled for MNA parameters due to the implementation of Source Reduction on the L.E. Carpenter property effective 1Q05.

(1) Sulfate results reported through 4Q06, and starting again in 4Q08, have a dilution factor of 5, except for blank samples or unless otherwise noted. Sulfate results reported from 1Q07 through 3Q08 have no dilution factor for sulfate unless noted otherwise.

(2) NJ CLASS IIA GWQC, NJ SWQC [FW2] and PQL are for Total Lead

NCS: No Criteria Specified by NJDEP

NS = Not Sampled

FS= Samples frozen in transit to lab.

ND = Not Detected

NA = Not Analyzed, due to lack of recharge water

Concentration exceeds NJGWQS 1.2

[L] Lower Grab Sample

[U] Upper Grab Sample

* Total Lead

TABLE 3
QUARTERLY GROUNDWATER MONITORING MNA FIELD DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

Well ID	Event	DO (mg/L)	pH	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (ppm)	Alkalinity (ppm)	CO2 (mg/L)
MW-19	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	10.97	7.23	24	890	2	13.94	NM	160	70
	3Q04	0.1	7.62	-10	1179	2	16.18	<10	200	95
	1Q05	0.2	7.67	100	590	5	11.82	9	241(1)	121
	2Q05L	1	7.84	NM	734	10	8.6	0.3	30	<10
	2Q05U	1	7.69	NM	760	10	8.46	0.4	29	<10
	3Q05	1	7.03	185	1920	9	15.86	>10	110	60
	4Q05	5.34	6.47	87	1005	4	15.01	>10	110	18
	1Q06	3.53	6.59	-50	978	13	8.72	>10	11	>100
	2Q06	4.92	7.66	-43	905	9	13.98	>10	225	60
	3Q06	0.34	7.08	-24	761	5	16.2	18	100	90
	4Q06	0.08	6.53	-76.7	579	7	15.36	>10	275	70
	1Q07	0.15	6.59	-90.3	444	5	10.38	20	250	35
	2Q07	0.05	6.69	-56	1640	2.5	13.7	>20	100	120
	3Q07	0.1	6.59	-94	1201	2	17.05	>20	200	80
	4Q07	0.2	6.36	5	865	5.1	12.54	>20	225	40
	1Q08	0.6	6.4	111.7	214.2	5	8.55	0.1	40	14
	2Q08	0.22	6.12	68.4	1,068	6.66	10.55	>10	125	130
	3Q08	0.16	6.42	-30	1,150	7	13.94	>20	140	50
	4Q08	0.12	6.63	-107	1065	5	14.33	10	210	30
	1Q09	0.08	7.44	-161	672	2.5	10.63	10	140	25
	2Q09	0.32	6.33	-173	1200	7.05	9.20	20	100	40
	3Q09	0.14	7.07	-100	640	1	14.06	10	70	50
MW-19-4	1Q06	7.62	7.53	-64	1351	14	5.61	0.6	12	>50
	2Q06	6.53	7.74	116	1442	22	13.93	0.2	100	17
	3Q06	2.93	7.43	92	1335	9	18.68	0	10	19
	4Q06	4.03	7.69	172	886	10	16.67	0	150	22
	1Q07	2.01	6.95	105	418	17	11.71	0	125	11
	2Q07	0.8	6.74	-1	1800	7.8	14.59	0.1	75	16
	3Q07	0.4	7.16	45	1187	10	17.68	0.05	125	26
	4Q07	0.6	7.57	216	1385	6	12.58	0	50	20
	1Q08	4	7.02	73.1	938.5	9	7.98	0	100	13
	2Q08	4.13	6.52	113	987	8.33	11.22	0.1	100	15
	3Q08	1.3	6.68	65	1120	9	14.29	0	60	19
	4Q08	1.4	6.55	92	1133	9	15.49	0.1	130	19
	1Q09	4.52	7.71	62	1500	9.86	11.75	0.2	90	25
	2Q09	2.64	6.22	-8	2580	8.44	10.08	0.4	70	18
	3Q09	0.69	7.25	111	1690	9	14.98	0.1	70	20
MW-19-5	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	10.16	7.02	41	1550	4	12.89	NM	130	70
	3Q04	1	7.26	87	1740	19	16.3	2	150	60
	1Q05	1	7.94	226	269	9	10.59	0	126(1)	63
	2Q05L	1	7.94	NM	2640	10	8	0	45	16
	2Q05U	0.8	7.99	NM	2100	38	6.96	0	45	10.5
	3Q05	0.8	7.44	184	920	2	15.15	>10	100	35
	4Q05	1.84	6.27	217	216	10	15.15	0.1	30	11
	1Q06	3.35	6.35	249	512	3	8.17	0	12	>100
	2Q06	6.79	7.50	36	327	5	14.4	0.3	90	27
	3Q06	2.87	7.45	143	406	10	16.38	0	100	22
	4Q06	6.3	7.55	184	347	6	14.49	0.4	145	32
	1Q07	0.16	6.53	14.2	370	4	10.08	1	175	16
	2Q07	0	7.04	-36	539	6.8	14	>20	190	70
	3Q07	0.1	7.09	36	530	5	16.18	1	160	65
	4Q07	1.6	6.17	45	311	3.6	12.59	0.4	130	30
	1Q08	1.83	6.28	108.1	125.5	12	6.14	0.1	35	15
	2Q08	1.48	5.99	6	371	10	10.06	0.2	100	40
	3Q08	0.07	6.76	-23	896	2	14.55	>20	190	30
	4Q08	3.29	6.38	76	214	7	15.01	0.2	75	26
	1Q09	3.35	7.27	16	227	7.89	8.64	0.2	60	14
	2Q09	4.67	6.19	-86	383	9	8.52	0.6	70	19
	3Q09	1.1	6.83	137	664	3	14.16	1	70	35
MW-19-6	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	5.48	6.86	56	2640	10	15.24	NM	80	33
	3Q04	1	7.43	83	2490	4	16.61	0.4	125	20
	1Q05	1	7.73	241	867	12	11.79	0	204(1)	41
	2Q05L	1	7.50	NM	1870	27	10.64	0.1	75	15
	2Q05U	1	7.48	NM	1790	2	9.89	1	80	20
	3Q05	1	7.28	191	3030	36	15.2	0.4	70	20
	4Q05	5.39	5.86	307	1550	9	14.76	0	80	10.5
	1Q06	3.71	6.60	237	1116	4	9.93	0	12	>100
	2Q06	6.61	7.53	35	1520	5	13.51	0.2	125	23
	3Q06	4.48	7.44	162	1249	9	16.11	0	100	24
	4Q06	4.7	7.47	207	941	8	15.45	0	70	40
	1Q07	1.16	6.82	69.5	602	8	11.38	0.2	90	16
	2Q07	1	6.69	-35	2720	5.6	14.36	0.1	140	50
	3Q07	0.8	7.16	12	1458	4	17.3	0.6	160	42
	4Q07	2	7.44	51.4	1283	5.9	12.92	0.3	25	17

TABLE 3
QUARTERLY GROUNDWATER MONITORING MNA FIELD DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

Well ID	Event	DO (mg/L)	pH	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (ppm)	Alkalinity (ppm)	CO2 (mg/L)
	1Q08	1	6.52	91.2	854.4	6	10.71	0.4	100	20
	2Q08	3.69	6.71	119.4	1,205	2.4	11.83	0.6	110	35
	3Q08	1.3	6.78	39	2,280	8	15.51	3	140	28
	4Q08	2.23	6.8	62	1,550	9	15.15	0.3	155	19
	1Q09	2.5	7.51	48	1152	8.69	10.10	0.4	120	20
	2Q09	2.69	6.46	-39	258	8.65	9.88	0.6	70	25
	3Q09	2.1	7.12	38	1730	9	14.02	1	60	25
MW-19-7	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	5.89	6.82	48	380	6	14.34	NM	95	90
	3Q04	1	6.92	113	4040	2	16.77	1	75	70
	1Q05	0.6	7.16	281	1388	1	11.34	3	200[1]	63
	2Q05[L]	0.05	7.82	102	938	25	11.7	15	160	36
	2Q05[U]	1	7.80	NM	961	49	11.22	15	200	29
	3Q05[L]	0.8	7.03	90	2670	17	14.76	>10	95	0.8
	3Q05[U]	1	7.02	185	2460	5	16.02	>10	70	35
	4Q05	1.58	5.98	-44	1434	14	14.85	>10	11	30
	1Q06	1.86	6.20	43	1130	14	10.81	>10	>100	>100
	2Q06	3.87	7.41	-33	1284	9	13.28	>10	170	70
	3Q06	0.6	7.28	33	1254	10	15.8	9	200	50
	4Q06	0.44	7.47	204	970	7	15.23	2	185	70
	1Q07	0.12	6.80	-84.3	518	6	11.52	9	175	23
	2Q07	0	6.98	36	1397	4.5	15.68	2	100	38
	3Q07	0.2	7.05	181	1016	5	17.48	0.2	120	38
	4Q07	0.6	6.48	74.2	2126	5.3	12.7	0.2	70	30
	1Q08	1	6.21	105.4	2023	10	9.48	0.3	45	27
	2Q08	0.24	6.42	0.5	1,892	9.13	11.31	1.5	130	22.5
	3Q08	0.11	6.94	60	980	29	16.78	0.5	150	27
	4Q08	0.23	6.42	50.9	806	9.13	15.77	0.6	130	14
	1Q09	1.33	7.28	53	4350	3.2	9.70	1	120	20
	2Q09	4.24	6.58	-14	5120	28.1	9.00	2	40	18
	3Q09	0.38	7.26	112	2310	8	15.04	0.6	80	21
MW-19-12	2Q06	0.99	7.29	-33	1046	9	16.06	4	120	100
	3Q06	0.21	7.41	5	1460	18	17.9	4	12	17
	4Q06	0.23	7.60	191	1234	10	16.72	3.5	1000	17
	1Q07	0.18	6.91	-39.6	680	8	12.29	1.5	100	10
	2Q07	2	7.24	137	473	5	18.56	0	110	11
	3Q07	2	7.45	118	463	2	19.2	0	85	0
	4Q07	9	7.55	2.7	439	8.1	9.68	0	110	<10
	1Q08	2	6.72	78.4	197.2	2	7.59	0	40	<10
	2Q08	7.4	7.09	79	386	0.12	13.31	0	110	<10
	3Q08	4.29	7.23	51	369	6	19.58	0	70	12
	4Q08	4.63	6.72	91	500	2	13.64	0.1	110	12
	1Q09	6.47	7.91	72	568	0.5	7.47	0.1	120	<10
	2Q09	9.6	7.59	18	621	7.18	9.29	0	70	6
	3Q09	4.98	7.11	123	464	1	17.23	0	70	13
MW-8	3Q08	0.06	7.04	-162	571	20	15.63	>20	260	30
	4Q08	0.23	6.99	-51	175	70	12.91	14	40	<100
	1Q09	0.1	8.08	-198	607	52.3	9.19	>10	125	30
	2Q09	0.1	7.16	12.3	268	39	8.11	>20	160	60
	3Q09	0.07	7.14	-165.1	633	13	13.34	>20	150	30
MW-25R	2Q06	0.47	6.77	-102	620	9	14.74	3.5	75	17
	3Q06	0.97	5.57	90.1	572	229	15.67	5	160	350
	4Q06	0.25	7.14	-41.2	517	24	11.33	1.5	90	100
	1Q07	1.8	6.80	-100.4	636	55	7.15	3	100	150
	2Q07	0.35	6.69	-65.8	453	123	14.38	3.5	40	20
	3Q07	1	6.98	-75.3	355	NM-mtr broke	18.93	0.3	75	15
	4Q07	0.6	7.15	30	616	127	6.81	2	100	110
	1Q08	0.34	7.32	-79	639	47.6	7.87	4.5	150	12.5
	2Q08	0.21	7.20	-80	601	46	10.95	4.5	150	15
	3Q08	0.24	6.55	-110.7	446	19.2	15.71	2.5	160	70
	4Q08	1.66	7.25	22.7	227	5.9	9.6	1	70	<10
	1Q09	0.71	7.22	21.8	383	8	5.00	0.5	120	<10
	2Q09	0.58	7.11	-40	376	8	6.48	2	70	7
	3Q09	0.15	6.77	-64	604	19.3	15.93	3	150	20
MW-27s	2Q06*	1.66	7.74	183	933	>1000	16.65	0	80	<10
	3Q06	0.54	7.72	45	1437	247	19.44	0	200	14
	4Q06	2.36	7.59	134	1275	>1000	16.39	0	<10	20
	1Q07	4	7.15	-10.8	1078	>1000	8.31	NM - sediment	NM - sediment	NM - sediment
	2Q07	8.29	7.09	105.6	765	>1000	15.23	NM - sediment	NM - sediment	NM - sediment
	3Q07	0.4	7.24	27	1017	>1000	17.58	NM - sediment	NM - sediment	NM - sediment
	4Q07	1	7.16	165	1002	997	11.34	NM - sediment	NM - sediment	NM - sediment
	1Q08	1	7.15	71.5	612.7	186	8.41	NM - sediment	NM - sediment	NM - sediment
	2Q08	1	7.18	111.1	735	81.1	11.43	0	22.5	85
	3Q08	3.21	6.21	46	861	184	17.09	0.8	225	135
	4Q08	2.63	6.99	34.4	626	47.2	13.67	NM - ran dry	NM - ran dry	NM - ran dry

TABLE 3
QUARTERLY GROUNDWATER MONITORING MNA FIELD DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

Well ID	Event	DO (mg/L)	pH	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (ppm)	Alkalinity (ppm)	CO2 (mg/L)
	1Q09	1.12	7.35	51.3	522	1000	10.67	0.1	200	20
	2Q09	1.55	8.2	-71	486	62	9.08	0.6	150	15
	3Q09	0.61	7.59	15	675	24.8	15.29	1	250	20
MW-28s	2Q06	0.11	7.69	-478	687	12	14.38	>10	82	37
	3Q06	0.27	5.96	-101.8	831	14	17.69	>20	180	90
	4Q06	0.04	7.22	-146.8	684	20	15.27	>20	200	55
	1Q07	2.1	6.74	-176.2	650	12	9.75	>20	160	22
	2Q07	0.48	7.01	-138.3	568	36	15.36	>20	180	35
	3Q07	0.1	7.1	-132.1	576	9.6	16.99	>20	180	50
	4Q07	0.2	6.86	-120.4	634	7.03	11.97	>20	170	22
	1Q08	0.11	7.3	-169	492	11.3	9.22	15	130	20
	2Q08	0.19	6.57	-52.4	508	9.13	12.25	>10	140	35
	3Q08	0.29	6.91	-65.1	390	9.54	15.33	>20	200	35
	3Q08	1	6.8	-92	494	339	16.5	NM	NM	NM
	4Q08	0.05	6.94	-81.5	395	7.96	13.88	>20	170	<100
	1Q09	0.18	7.59	-15.3	466	9.86	9.63	>20	115	22
	2Q09	0.06	6.75	-76.6	392	9	9.26	>20	150	40
	3Q09	0.06	6.93	-114.2	899	9.66	14.81	>20	160	40
MW-28I	2Q06	0.23	7.88	-126	756	8	15	>10	135	28
	3Q06	0.51	7.59	-98	649	14	16.42	18	90	27
	4Q06	0.04	7.37	-146.7	598	13	14.82	>20	150	25
	1Q07	0.2	6.80	-173.3	686	4.9	10.7	>20	140	23
	2Q07	0.18	7.07	-170	507	17	14.9	>20	145	24
	3Q07	0.1	7.15	-104.7	536	5.7	16.19	>20	170	30
	4Q07	0.26	6.59	-58.2	677	7.44	11.96	>20	160	20
	1Q08	0.01	6.81	-100.2	400.2	6	10.31	12	135	20
	2Q08	0.2	6.65	-4.8	593	7.75	12.99	>10	170	35
	3Q08	0.21	7.34	-136	530	10	14.94	>20	170	23
	4Q08	0.04	7.28	-68	442	8.81	14.23	>20	160	<100
	1Q09	0.13	7.07	-34	548	7.67	11.19	>20	150	25
	2Q09	0.05	6.35	-29.1	407	20	9.97	>20	100	60
	3q09	0.52	7.88	-96	1007	4	13.70	20	50	50
MW-29s	2Q06	3.63	7.32	-32	1021	68	18.45	>10	260	95
	3Q06	0.36	6.73	-109.8	1090	10	20.63	18	310	80
	4Q06	0.05	6.85	-97.9	775	11	17.04	>10	350	65
	1Q07	0.7	6.53	-163.9	902	5.6	8.77	18	240	30
	2Q07	4.03	6.71	-113.8	766	31	18.48	>10	225	25
	3Q07	0.7	6.66	-13.9	881	9.84	21.12	>20	325	100
	4Q07	0.2	7.12	-35	960	8	13.51	>20	285	75
	1Q08	0.21	7.02	-94	1027	9.92	7.87	>10	290	22
	2Q08	0.27	6.89	31.2	935	5.9	12.22	>20	250	70
	3Q08	0.08	6.61	-79.7	456	8.09	20.04	>10	300	130
	4Q08	0.09	6.91	-127	798	6	17.6	>20	250	36
	1Q09	1.14	6.72	62.8	564	6.78	9.00	20	200	50
	2Q09	0.05	7.09	-89.7	578	8	9.13	>20	350	70
	3Q09	0.07	6.47	-115.1	922	9.51	17.91	>20	250	80
MW-30s	2Q06	0.14	6.76	-180	672	34	16.81	>10	78	14
	3Q06	0.39	5.66	73.1	704	155	18.9	18	60	250
	4Q06	0.01	7.09	-146.1	627	94	13.46	>20	200	60
	1Q07	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q07	0.34	6.99	-159.4	458	213	18.55	>20	225	40
	3Q07	0.3	7.05	-128.7	696	100	19.15	>20	230	37
	4Q07	0.8	7.45	-50	871	67	7.74	>20	200	43
	1Q08	0.12	7.32	-158	825	113	4.85	>20	NM - sediment	NM - sediment
	2Q08	0.2	7.49	-47.6	484	9.42	11.43	18	160	22.5
	3Q08	0.03	6.93	-128.1	378	11.2	19.06	>10	200	70
	4Q08	0.05	6.66	-2.3	468	9.65	12.93	>20	50	20
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q09	0.17	6.94	-238	956	9.47	7.67	+20	80	40
	3Q09	0.06	6.93	-118.2	724	9.5	18.26	>20	225	50
MW-30i	2Q06	0.33	7.70	-194	687	8	15.22	5.5	75	19
	3Q06	0.43	7.52	-63	777	9	17.13	18	180	32
	4Q06	0.2	7.16	-144.2	827	42	14.2	>10	>1000	45
	1Q07	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q07	0.33	6.99	-146.8	486	41	15.23	>20	145	25
	3Q07	0.4	7.08	-19.8	661	NM-mtr broke	17.07	>20	200	29
	4Q07	1	7.39	-15	889	136	8.28	>20	200	24
	1Q08	0.13	6.7	-149	784	9.98	8.55	>20	150	18
	2Q08	0.08	7.29	-142	581	21	12.28	16	140	26
	3Q08	0.04	73.11	-136.0	552	8.56	16.62	>10	180	50
	4Q08	0.3	7.43	-133	715	6	13.57	>20	165	27
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q09	0.32	6.73	-222	930	5.7	8.75	20	50	32
	3Q09	0.05	7.06	-143.2	682	9.62	15.86	18	180	50

TABLE 3
QUARTERLY GROUNDWATER MONITORING MNA FIELD DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

Well ID	Event	DO (mg/L)	pH	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (ppm)	Alkalinity (ppm)	CO2 (mg/L)
MW-30d	2Q06	0.3	5.35	-131	449	10	14.45	2	100	30
	3Q06	2.49	7	-44	458	15	15.07	2.5	70	70
	4Q06	0.18	7.29	-99	637	33	13.39	5	130	17
	1Q07	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q07	0.38	7.03	-95.7	340	69	14.51	3.5	115	12
	3Q07	0.8	7.24	22.6	401	NM-mtr broke	14.73	3	130	13
	4Q07	0.1	7.05	128	500	80	10.02	0.4	100	<10
	1Q08	0.45	6.8	1	487	16.3	9.19	1.5	130	<10
	2Q08	0.32	7.24	-62	504	18	12.87	2	125	14
	3Q08	0.2	7.3	-112.3	328	9.41	15.26	2.5	115	14
	4Q08	0.19	7.48	-114	532	12	12.59	6	125	13
	1Q09	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen	NS-frozen
	2Q09	0.18	7.03	-197	608	14	10.87	3	80	13
	3Q09	0.22	7.19	-110	450	14.5	13.79	2	130	13
MW-31s	2Q08	0.51	12.47	-192	1,499	>1000	15.74	1	225	0
	3Q08	0.97	6.54	-27	2,130	381	21.79	4.5	1000	400
	4Q08	0.16	8.13	34.7	488	7.64	12.99	NM-No Water	NM-No Water	NM-No Water
	1Q09	0.43	10.98	71	567	15	5.45	0.1	200	0
	2Q09	0.16	8.68	-127.6	540	28	6.61	0.4	225	18
	3Q09	0.24	10.67	-144.1	795	6.22	18.68	0.5	170	NM-No Water
MW-32s	2Q08	0.33	6.9	-86	1,105	109	12.11	NM-No Water	NM-No Water	NM-No Water
	3Q08	0.07	6.47	-149.6	1,169	15.9	22.56	NM-No Water	NM-No Water	NM-No Water
	4Q08	0.41	6.68	-20.4	799	14	14.72	NM-No Water	NM-No Water	NM-No Water
	1Q09	0.32	6.94	42.1	665	8	5.60	NM-No Water	NM-No Water	NM-No Water
	2Q09	0.29	6.61	-132.8	659	12	6.62	>20	250	80
	3Q09	0.19	6.63	-111.4	952	5.17	18.70	>20	500	100
MW-33s	2Q08	0.77	7.29	-74	650	682	12.98	18	180	70
	3Q08	2.55	6.06	NM	616	148	26.4	>20	310	200
	4Q08	0.21	6.44	5.7	607	14	13.1	NM-No Water	NM-No Water	NM-No Water
	1Q09	0.37	5.2	168.5	567	38	5.29	>20	225	60
	2Q09	0.61	6.79	-39.4	577	38.6	5.86	>20	350	80
	3Q09	0.18	6.56	-82.7	1226	16.9	17.63	>20	500	150
MW-34s	2Q08	0.51	7.01	-111	794	7	14.84	NM-No Water	NM-No Water	NM-No Water
	3Q08	0.15	6.4	-136.3	1240	12.1	20.19	NM-No Water	NM-No Water	NM-No Water
	4Q08	0.48	6.62	50.7	686	13.5	14.83	NM-No Water	NM-No Water	NM-No Water
	1Q09	0.27	7.33	23.9	557	9	5.90	NM-No Water	NM-No Water	NM-No Water
	2Q09	0.44	7.32	-82.5	488	10	6.57	8	300	30
	3Q09	0.36	6.51	-89	761	6.08	17.40	NM-No Water	NM-No Water	NM-No Water
MW-35s	2Q08	0.37	6.78	-56	917	>1000	11.51	>20	310	70
	3Q08	1.5	6.35	-55	736	65	19.23	>20	260	50
	4Q08	1.35	6.87	-30.2	848	38.5	14.18	NM-No Water	NM-No Water	NM-No Water
	1Q09	0.15	7.28	3.3	607	59	5.81	>20	225	30
	2Q09	0.21	7.36	-121.9	683	53	6.40	>20	300	30
	3Q09	0.2	6.65	-108.2	896	22.2	17.49	>20	275	80
GEI-2S	3Q07	0.6	6.47	-29.8	586	15	15.28	0	150	30
	2Q08	3.71	6.29	118.4	669	7.5	9.97	0	50	17
	3Q08	1.69	6.73	69	1054	10	13.45	0.6	175	25
	4Q08	0.92	6.70	42.4	313	7.42	12.19	0.1	140	12
	1Q09	2.78	7.4	67	898	9.5	10.45	0.1	150	27
	2Q09	3.95	6.83	-13	535	5.32	8.97	0	60	16
	3Q09	NM-Dry	NM-Dry	NM-Dry	NM-Dry	NM-Dry	NM-Dry	NM-Dry	NM-Dry	NM-Dry

Notes:

As mentioned in January 13, 2005 letter, only the MW-19 Hotspot wells will be sampled for MNA parameters due to the implementation of Source Reduction on the L.E. Carpenter property effective 1Q05.

** Additional field MNA parameters not required for MW-19-9D.

(1) Laboratory analyzed for alkalinity due to destroyed field kits.

NS = Not Sampled

NM = Not Measured

L Lower Grab Sample

U Upper Grab Sample

* Well was not stabalized due to well going dry.

TABLE 4
SOIL GAS INVESTIGATION ANALYTICAL RESULTS (MARCH 2006)
DAYCO CORPORATION/LE CARPENTER & COMPANY, BOROUGH OF WHARTON, NEW JERSEY
USEPA ID NO. NJD002168748

CONSTITUENTS	UNITS	NJDEP Master Table Generic Vapor Intrusion Screening Levels		Soil Gas ID and Lab Number								
				SG-06-01	SG-06-02	SG-06-03	SG-06-04	SG-06-05	SG-06-06	SG-06-07	Duplicate (SG-06-1	Lab Blank
		SAMPLE DATE		1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	
		SOIL GAS SCREENING LEVELS (RESIDENTAL) ppbv	STANDARD REFERENCE	Lab Sample # 0603056-05A	Lab Sample # 0603056-07A	Lab Sample # 0603056-06A	Lab Sample # 0603056-01A	Lab Sample # 0603056-02A	Lab Sample # 0603056-03A	Lab Sample # 0603056-04A	Lab Sample # 0603056-05AA	Lab Sample # 0603056-08A
MODIFIED TO-15												
1,1,1-Trichloroethane	ppbv	9,400	1	1.4	8	< 2.4	< 1.2	< 1.2	< 1.2	< 3	1.2	< 0.5
1,1,2,2-Tetrachloroethane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,1,2-Trichloroethane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,1-Dichloroethane	ppbv	6,300	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,1-Dichloroethene	ppbv	2,800	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2,4-Trichlorobenzene	ppbv	25	1	UJ 4.8	UJ 4.8	UJ 9.7	UJ 4.8	J 5.7	UJ 4.8	UJ 12	UJ 4.8	UJ 2
1,2,4-Trimethylbenzene[2]	ppbv	--	1	3.5	2.2	2.8	< 1.2	2.7	2	< 3	3.1	< 0.5
1,2-Dibromoethane (EDB)	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichlorobenzene	ppbv	1,200	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichloroethane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichloroethene (cis)[2]	ppbv	--	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichloroethene (trans)	ppbv	780	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichloroethene (total)	ppbv	410	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,2-Dichloropropane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,3,5-Trimethylbenzene[2]	ppbv	--	1	1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	1.3	< 0.5
1,3-Butadiene	ppbv	5	1	56	2	92	33	98	51	36	53	< 0.5
1,3-Dichlorobenzene	ppbv	91	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,3-Dichloropropene (cis)[3]	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,3-Dichloropropene (trans)[3]	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,3-Dichloropropene[3]	ppbv	7	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,4-Dichlorobenzene	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
1,4-Dioxane	ppbv			< 4.8	< 4.8	< 9.7	< 4.8	< 4.9	< 4.8	< 12	< 4.8	< 2
2,2,4-Trimethylpentane[2]	ppbv	--		E 510	200	720	440	E 490	E 750	580	490 E	< 0.5
2-Butanone (Methyl Ethyl Ketone)	ppbv	87,000	1	39	4.8	15	6.6	21	6.9	5.7	39	< 0.5
2-Hexanone	ppbv			< 4.8	< 4.8	< 9.7	< 4.8	< 4.9	< 4.8	< 12	< 4.8	< 2
2-Propanol	ppbv			5.3	< 4.8	< 9.7	< 4.8	5.5	< 4.8	< 12	< 4.8	< 2
3-Chloropropene	ppbv	5		< 4.8	< 4.8	< 9.7	< 4.8	< 4.9	< 4.8	< 12	< 4.8	< 2
4-Ethyltoluene[2]	ppbv	--		1.9	1.2	< 2.4	< 1.2	2	< 1.2	< 3	1.9	< 0.5
4-Methyl-2-pentanone	ppbv	38,000	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Acetone	ppbv	69,000	1	480	96	360	150	370	250	200	450	< 2
alpha-Chlorotoluene	ppbv	51	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Benzene	ppbv	5	1	10	1.8	4.9	10	15	7.2	9.4	11	< 0.5
Bromodichloromethane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Bromoform	ppbv	8	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Bromomethane	ppbv	66	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Carbon Disulfide	ppbv	12,000	1	3.3	1.4	8.3	1.5	15	6.4	< 3	3.2	< 0.5
Carbon Tetrachloride	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5

TABLE 4
SOIL GAS INVESTIGATION ANALYTICAL RESULTS (MARCH 2006)
DAYCO CORPORATION/LE CARPENTER & COMPANY, BOROUGH OF WHARTON, NEW JERSEY
USEPA ID NO. NJD002168748

CONSTITUENTS	UNITS	NJDEP Master Table Generic Vapor Intrusion Screening Levels		Soil Gas ID and Lab Number								
				SG-06-01	SG-06-02	SG-06-03	SG-06-04	SG-06-05	SG-06-06	SG-06-07	Duplicate (SG-06-1	Lab Blank
		SAMPLE DATE		1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	1-Mar-06	
		SOIL GAS SCREENING LEVELS (RESIDENTAL) ppbv	STANDARD REFERENCE	Lab Sample # 0603056-05A	Lab Sample # 0603056-07A	Lab Sample # 0603056-06A	Lab Sample # 0603056-01A	Lab Sample # 0603056-02A	Lab Sample # 0603056-03A	Lab Sample # 0603056-04A	Lab Sample # 0603056-05AA	Lab Sample # 0603056-08A
MODIFIED TO-15												
Chlorobenzene	ppbv	670	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Chloroethane	ppbv	41	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Chloroform	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Chloromethane	ppbv	2,300	1	< 4.8	< 4.8	< 9.7	< 4.8	< 4.9	< 4.8	27	< 4.8	< 2
Cumene	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Cyclohexane	ppbv	90,000	1	2.9	< 1.2	< 2.4	3.2	2	2.5	< 3	3	< 0.5
Dibromochloromethane	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Ethanol	ppbv			39	11	30	6.2	14	10	13	39	< 2
Ethyl Benzene	ppbv	12,000	1	2.9	1.9	2.6	2.5	2.8	2.1	< 3	3	< 0.5
Freon 11	ppbv	6,500	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Freon 113	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Freon 114	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Freon 12	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Heptane[2]	ppbv	--		6.5	2.3	5.8	8.6	8.3	5.9	6.1	6.2	< 0.5
Hexachlorobutadiene	ppbv	5	1	< 4.8	< 4.8	< 9.7	< 4.8	< 4.9	< 4.8	< 12	< 4.8	< 2
Hexane	ppbv	3,000	1	23	< 1.2	3.3	20	8.7	12	8.1	20	< 0.5
Methyl tert-butyl ether	ppbv	22	1	4.9	1.5	< 2.4	7.1	7.6	2.6	5	4.1	< 0.5
Methylene Chloride	ppbv	55	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Propylbenzene	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Styrene	ppbv	12,000	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Tetrachloroethene	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Tetrahydrofuran	ppbv			< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Toluene	ppbv	68,000	1	19	8.4	13	20	22	14	15	19	< 0.5
Trichloroethene	ppbv	5	1	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 3	< 1.2	< 0.5
Vinyl Chloride	ppbv	5	1	1.5	< 1.2	< 2.4	< 1.2	< 1.2	2.1	< 3	1.4	< 0.5
Xylene (m, p)[3]	ppbv			8.8	5.6	8	6.7	8.5	5.9	4.1	9.3	< 0.5
Xylene (o)[3]	ppbv			3.1	2	2.6	2.4	2.4	2.1	< 3	2.9	< 0.5
Xylene (total)[3]	ppbv	1,300	1	11.9	7.6	10.6	9.1	10.9	8	4.1	12.2	< 0.5

Notes

1. Shaded/Bolded values - Detections that exceed the selected NJDEP Standard.
2. Screening levels are unavailable sue to the absence of toxicity information.
3. The concentrations of each isomer are added if multiple isomers are present and the results compared to the total screening level.

SG = Soil Gas Sample
ppbv = parts per billion by volume
UJ = Non-detected compound associated with low bias in the CCV.
E = Exceeds instrument calibration rangel
J = Estimated value due to bias in the CCV

Standard Reference

1. NJDEP Vapor Intrusion Guidance- Table 1; NJDEP Master Table- Generic Vapor Instrusion Screening Levels

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS													
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		3		1.3	
SW-D-1												
*	8-Apr-05	2Q05	<	0.2	<	0.20	<	0.20	<	0.60	<	1.00
	26-Jul-05	3Q05	<	0.2	<	0.2	J	0.5	<	0.6	<	1.0
	26-Oct-05	4Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	27-Feb-06	1Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	2.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	J	0.2	<	0.6	J	11.0
	9-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	7-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		7.3
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.18	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0		4.9	<	1.2
Dilution factor for DEHP 1.03	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.33	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.3
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9		12.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	2.0
	21-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	1.0
SW-D-2												
	8-Apr-05	2Q05		NS		NS		NS		NS		NS
	26-Jul-05	3Q05	<	0.2	J	0.5	<	0.2		6.1		38.0
	26-Oct-05	4Q05	<	0.2	J	0.6	<	0.2	J	2.0	<	1.0
	27-Feb-06	1Q06	<	0.2	J	0.8	<	0.2	J	2.7		27.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	1.0
	19-Jun-06	2Q06D	<	0.2	<	0.2	<	0.2	<	0.6	J	2.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	2.0
	9-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	1.0
	7-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0		11.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		3.0
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0		1.5
Dilution factor for DEHP 1.11	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0		4.4	<	1.1
Dilution factor for DEHP 1.18	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0		7.1
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6		13.0
Dilution factor for DEHP 5	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9		230.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	1.0
	6-Apr-09	2Q09D	<	0.9	<	0.8	<	0.8	<	0.9	J	1.0
	21-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	4.0

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS													
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		.3		1.3	
SW-D-3												
	8-Apr-05	2Q05	<	0.2		21.0	<	0.2		79.0	J	2.0
	26-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	J	1.1	J	7.0
	26-Oct-05	4Q05	<	0.2	J	0.4	<	0.2	J	1.4	<	1.0
	27-Feb-06	1Q06	<	0.2		1.1	<	0.2		3.9	J	6.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	3.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	1.0
	11-Sep-06	3Q06D	<	0.2	<	0.2	<	0.2	<	0.6	J	3.0
	9-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	7-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0		3.3
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		1.6
Dilution factor for DEHP 1.1	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.05	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0		3.8	<	1.0
	18-Feb-08	1Q08D	<	1.0	<	1.0	<	5.0		3.8	<	1.0
Dilution factor for DEHP 1.25	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9		14.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	21-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	1.0
SW-D-4												
	20-Jun-06	2Q06	<	0.2	<	0.2	J	0.4	<	0.6	J	3.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	2.0
	9-Nov-06	4Q06	<	0.2	J	0.4	<	0.2	J	0.6	<	0.9
	7-Feb-07	1Q07	<	1.0		2.0	<	5.0		3.8		3.3
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		1.0
	4-Dec-07	4Q07	<	1.0		1.4	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.08	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0		4.1	<	1.1
Dilution factor for DEHP 1.08	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0		9.2
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9		21.0	<	0.8		20.0		29.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	2.0
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	2.0
	20-Jul-09	3Q09D	<	0.9	<	0.8	<	0.8	<	0.9	J	2.0
SW-D-5												
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	10.0
	6-Nov-06	4Q06	<	0.2	J	0.2	<	0.2	J	0.8	<	0.9
	7-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS											
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		3		1.3	
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		3.4
	3-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.1	3-Dec-07	4Q07D	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.03	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.25	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	J	4.0
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	J	2.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
DRC-2												
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	6-Nov-06	4Q06	<	0.2	J	0.5	<	0.2	J	1.9	<	0.9
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	3-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.18	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
SW-R-1												
	20-Apr-05[1]	2Q05	<	0.2		17.0	J	0.8		99.0	J	2.0
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	J	1.0
	27-Oct-05	4Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	27-Feb-06	1Q06	<	0.2	J	0.3	<	0.2	J	1.4	<	0.9
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	6-Nov-06	4Q06	<	0.2	J	0.2	<	0.2	J	1.1	<	1.0
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		1.3
	3-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.11	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.18	5-May-08	2Q08	<	1.0		1.2	<	5.0		5.9	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS											
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		3		1.3	
SW-R-2												
	20-Apr-05	2Q05		NS		NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Oct-05	4Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Feb-06	1Q06	<	0.2	J	0.5	<	0.2	J	2.3	<	1.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	6-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Nov-06	4Q06D	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		1.7
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.11	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.14	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
SW-R-3												
	20-Apr-05	2Q05		NS		NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Feb-06	1Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	J	2.0
	6-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0		3.0
	25-Jun-07	2Q07D	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		3.9
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.11	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.05	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.25	5-May-08	2Q08D	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
Dilution factor for DEHP 10	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0		150
	21-Jul-08	3Q08R		NA		NA		NA		NA		26
	15-Aug-08	3Q08(2)	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	15-Aug-08	3Q08(3)	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Oct-08	4Q08D	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	12-Jan-09	1Q09D	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS											
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		3		1.3	
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
SW-R-4												
	20-Apr-05	2Q05		NS		NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Feb-06	1Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	6-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0		19.0
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.11	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	21-Jul-08	3Q08D	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
SW-R-5												
	20-Apr-05	2Q05		NS		NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	27-Feb-06	1Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	7-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07D	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.18	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.2
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0

TABLE 5
SURFACE WATER MONITORING DATA
Dayco Corporation/L.E. Carpenter and Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

MONITORING WELLS	ANALYTICAL PARAMETERS											
	SAMPLE DATE	QUARTER	Benzene		Ethylbenzene		Toluene		Total Xylenes		bis-2-Ethylhexylphthalate (DEHP)	
		UNITS	ug/l		ug/l		ug/l		ug/l		ug/l	
APPLICABLE BACKGROUND CONCENTRATION (SW-R-5). CONCENTRATION AT OR BELOW DECTION LIMIT. N.J.A.C. 7:9B-1.5 (d)6iii			1		1		5		3		1.3	
SW-R-6												
	27-Feb-06	1Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	19-Jun-06	2Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Sep-06	3Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Nov-06	4Q06	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	6-Feb-07	1Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	25-Jun-07	2Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	10-Sep-07	3Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	4-Dec-07	4Q07	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
Dilution factor for DEHP 1.14	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
Dilution factor for DEHP 1.11	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.1
	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-09	1Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	1.0
	6-Apr-09	2Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
	20-Jul-09	3Q09	<	0.9	<	0.8	<	0.8	<	0.9	<	0.9
RINSE BLANK												
RB-01	18-Feb-08	1Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
RB-01	5-May-08	2Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
RB-01	21-Jul-08	3Q08	<	1.0	<	1.0	<	5.0	<	3.0	<	1.0
RB-01	27-Oct-08	4Q08	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9

LEGEND

NA = Not Applicable

NS = Not Sampled

D = Duplicate sample

R = Sample was re-run by the laboratory

Concentration exceeds NJSWQS 38.0

B: Analyte also detected in blank

J: Estimated value. Value is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

ug/L = micrograms per liter

Surface Water Quality Standard Reference: N.J.A.C 7:9B October 2006.

(Dover) - Washington Pond outlet downstream to Rt. 46 bridge Cat 1 FW2-TM(C1)

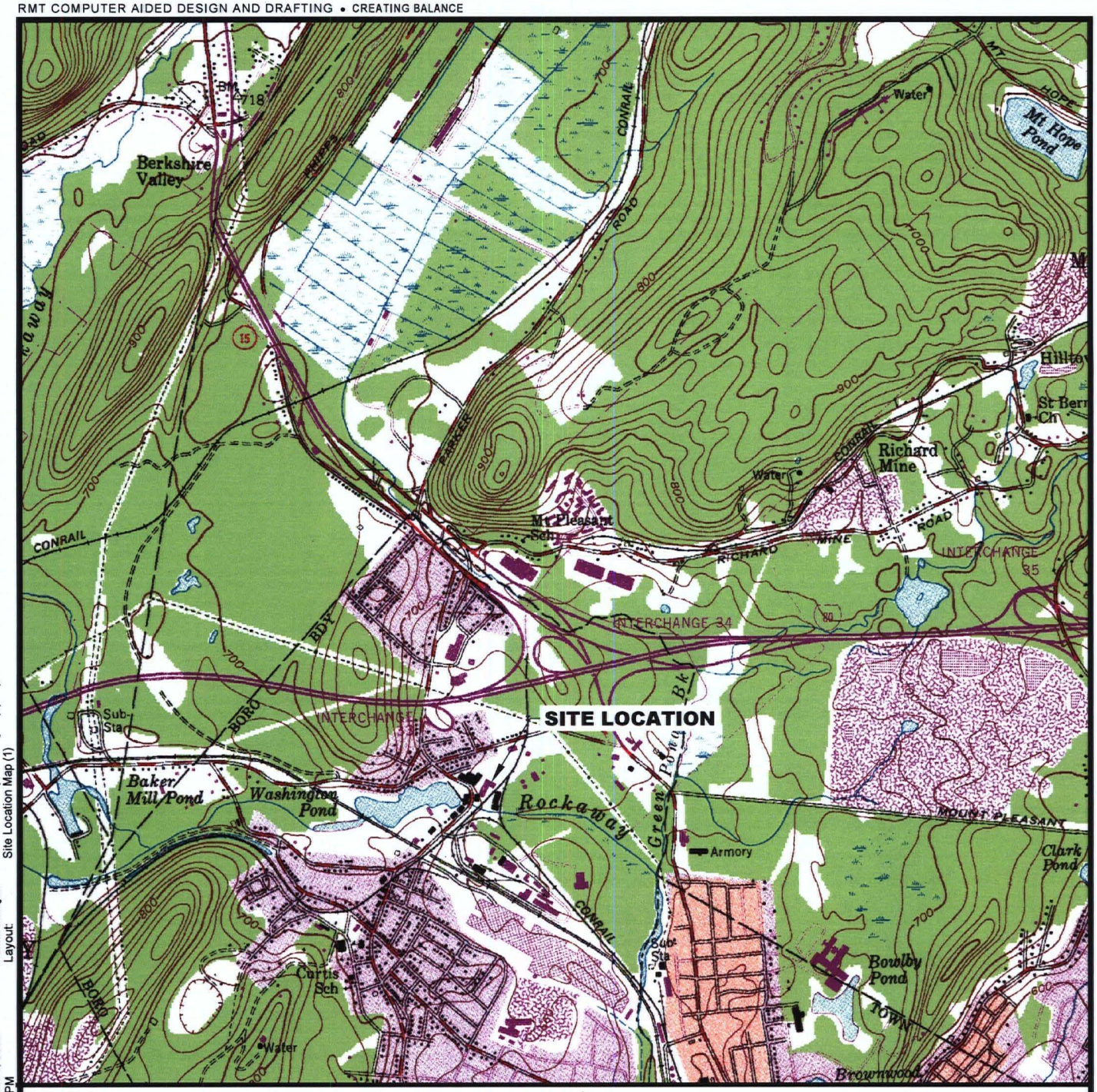
* = Detection limit is elevated due to interference from other,parameter detections. Laboratory will be contacted to lower benzene detection limit to be below the NJSWQS.

(1) One surface water sample was collected near the edge of the river immediately adjacent to the location of absorbent booms that were placed in order to prevent any migration into the river of sheen observed on top of quiescent water ponded within the wetland area. Due to bottle mislabeling and laboratory error, each of the five river sample bottles (R-1 through R-5) were analyzed individually instead of as a whole set. The highest concentration detected in any of the five laboratory results for the river sample are listed under SW-R-1 for April 2005.

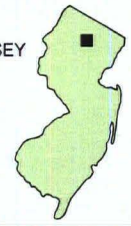
(2) Due to believed lab contamination of the original sample, surface water location SW-R-3 was resampled and the sample alaquot was split between two labs. These results are from Environmental Science Corporation (ESC).

(3) Due to believed lab contamination of the original sample, surface water location SW-R-3 was resampled and the sample alaquot was split between two labs. These results are from Lancaster Laboratories (Lancaster).

Figures



NEW JERSEY



N

0 2000' 4000'

APPROXIMATE SCALE IN FEET

SOURCE

BASE MAP DEVELOPED FROM THE DOVER, NEW JERSEY 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, DATED 1954, PHOTOREVISED 1981.

RMT

3754 Ranchero Drive
Ann Arbor, MI 48108-2237
Phone: 734-971-7080 • Fax: 734-971-9022

L.E. CARPENTER WHARTON, NEW JERSEY

SITE LOCATION MAP

DRAWN BY:	SJL
CHECKED BY:	JEO
APPROVED BY:	JDD, NC
DRAWING SCALE:	SHOWN
PROJECT NUMBER:	J:\06527\37
FILE NUMBER:	6527.37.11.dwg
DATE:	October 2009

FIGURE 1

PLOT DATA:
Drawing Name: J:\06527\37\6527.37.11.dwg
Operator Name: LUCIDO, SAM
Drawing Plot Scale: 0.000500
Dwg Size: 0.11 Mb
Plot Date: October 9, 2009
Plot Time: 1:52 PM
Attached Xrefs:
Attached Images:
Layout: Dover New Jersey; RMT Logostrip (CLR); Site Location Map (1)

RMT COMPUTER AIDED DESIGN AND DRAFTING

ROSS STREET

MW-19HS1 AOC

BUILDING 9

BUILDING 8

BUILDING 15

BUILDING 17

BUILDING 16

MW-30 AOC

WASHINGTON POND

W.E.638.3

ROCKAWAY RIVER

BEAVER DAM

SCATTERED TREES & BRUSH

SCATTERED TREES

ROCK

MW-19-8 MW-19-11 MW-19-10 MW-19-12 MW-19-9 MW-19-7 MW-19-6 MW-19-5 MW-19-2 MW-19-3 MW-19 MW-19-1 MW-19-4

GEI-2I GEI-2S GEI-1I GEI-3i

MW-18S MW-18I

MW-15S MW-15I

MW-27s MW-28s MW-28I

MW-29s MW-23 MW-13S MW-13i MW-13(R) MW-30d MW-30I MW-30s MW-36s MW-31s MW-32s MW-33s MW-34s MW-35s MW-21 MW-25(R)

MW-17S MW-8 MW-12(R) MW-9

SW-R-5 SG-R5 SW-R-6 SG-R6 SW-R-4 SG-R4 SW-R-3 SG-R3 SW-R-2 SG-R2 SW-R-1 SG-R1 DRC-2

SW-D-4 SG-D4 SW-D-3 SG-D3 SW-D-2 SG-D2 SW-D-1 SG-D1 SW-D-5

LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE LINE
- TREES
- 630 POST-REMEDIATION GROUND SURFACE ELEVATIONS
- MW-25(R) GROUNDWATER ELEVATION MONITORING WELL LOCATION AND NUMBER (s = shallow, i = intermediate, d = deep)
- MW-29s PRMP MONITORING WELL LOCATION AND NUMBER (s = shallow, i = intermediate, d = deep)
- SG-R1 RIVER POINT SURFACE WATER ELEVATION AND NUMBER
- SG-D1 DRAINAGE CHANNEL POINT SURFACE WATER ELEVATION AND NUMBER
- GEI-2I PIEZOMETER LOCATION AND NUMBER
- SW-R-1 SURFACE WATER SAMPLING LOCATION (D = DITCH, R = RIVER)
- AREA OF CONCERN (AOC AREA)

PROPOSED SAMPLING LOCATIONS

- MW-36s PROPOSED MONITORING WELL LOCATION AND NUMBER

NOTES

1. BASE MAP DEVELOPED FROM TOPOGRAPHIC SURVEY PROVIDED BY JAMES M.STEWART, INC., LAND SURVEYORS, DRAWING NO 2793-03.DWG, DATED 02-14-02 AS REVISED 04-10-07 (DRAWING NO. 314907REV.DWG).
2. FORMER BUILDING OPERATIONS
   - BUILDING 9: RAW MATERIAL, DRUM STORAGE, AND PRINTING
   - BUILDING 8: LAMINATION
   - BUILDING 15 and 17: INSPECTION, STORAGE, AND DISTRIBUTION
   - BUILDING 16: OFFICES

0 60' 120' 180' 240'
SCALE IN FEET

NO.	BY	DATE	REVISION	APP'D.
5.				
4.				
3.				
2.				
1.				

L.E. CARPENTER
WHARTON, NEW JERSEY

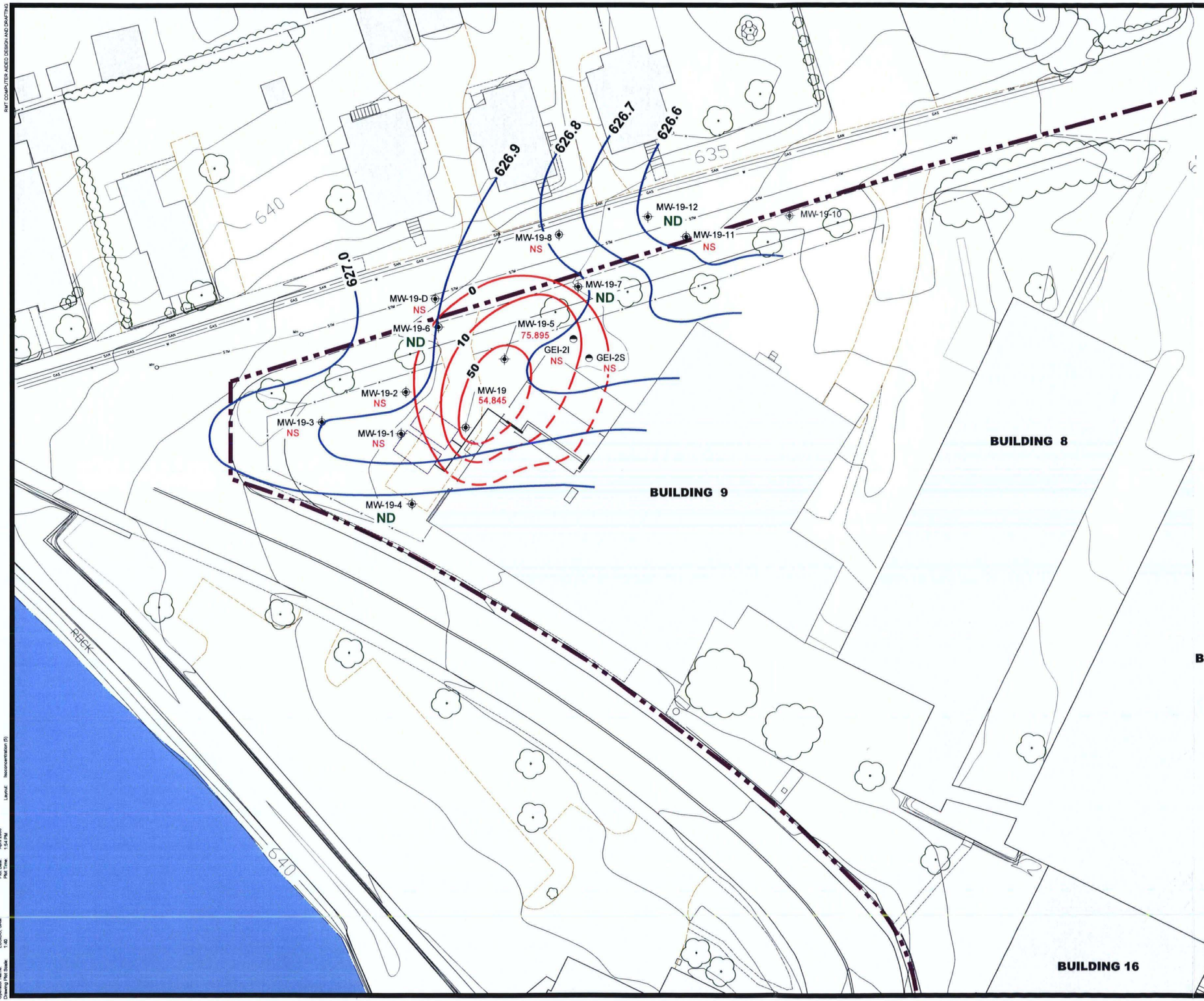
SITE PLAN WITH AOCs AND SAMPLE LOCATIONS

DRAWN BY:	SJL	DRAWING SCALE:	PROJECT NO. J:\06527\37
CHECKED BY:	JEO	SHOWN	FILE NO. 6527.37.12.dwg
APPROVED BY:	NLC	DATE PRINTED:	**FIGURE 2**
DATE:	October 2009		

RMT

3754 Ranchero Drive
Ann Arbor, Michigan 48108-2771
Phone: 734-971-7080
Fax: 734-971-9022

Drawing Name: 6527.37.12.dwg
Operator Name: LUCIDO, SAM
Drawing Plot Scale: 1:40
J:\06527\37
Layout: Site Plan (2)
Dwg Size: D 36 Mil
Plot Date: March 2008
Plot Time: 1:54 PM



LEGEND

- APPROXIMATE PROPERTY LINE
- MW-19-7 / 0.038 — MONITORING WELL WITH CORRESPONDING TOTAL DISSOLVED BTEX CONCENTRATION IN PPM (mg/L)
- MW-19-10 — ABANDONED APRIL 2008
- GEI-2I — QUARTERLY STATIC WATER LEVEL MONITORING LOCATION
- FENCE LINE
- 626 — GROUNDWATER ELEVATION CONTOUR
- SAN — SANITARY SEWER
- G&W — GAS AND WATER
- STM — REGIONAL STORM SEWER LINE
- W — WATER
- E — ELECTRIC
- MH — MANHOLE
- 10 — ISOCONCENTRATION CONTOUR FOR TOTAL MAXIMUM BTEX (ppm) IN GROUNDWATER
- 10 — ISOCONCENTRATION LINE WHERE INFERRED CONTAMINATION (ppm) IN GROUNDWATER BASED ON SOURCE DETERMINATION (SEPT. 2007 RASR)

NOTES

1. BASE MAP DEVELOPED FROM TOPOGRAPHIC SURVEY PROVIDED BYJAMES M.STEWART, INC. LAND SURVEYORS, DRAWING NO 2793-03.DWG, DATED 02-14-02 AS REVISED 04-10-07 (DRAWING NO. 314907REV.DWG).
2. FORMER BUILDING OPERATIONS
   - BUILDING 9: RAW MATERIAL, DRUM STORAGE, AND PRINTING
   - BUILDING 8: LAMINATION
   - BUILDING 15 and 17: INSPECTION, STORAGE, AND DISTRIBUTION
   - BUILDING 16: OFFICES
3. NS = NOT SAMPLED; ND = NOT DETECTED
4. OVERHEAD POWER LINES ROUGHLY PARALLEL TO SANITARY SEWER, GAS AND WATER LINES.
5. GROUNDWATER ELEVATIONS BASED ON LEVELS MEASURED ON JULY 20, 2009.

0 20' 40' 60' 80'
SCALE IN FEET

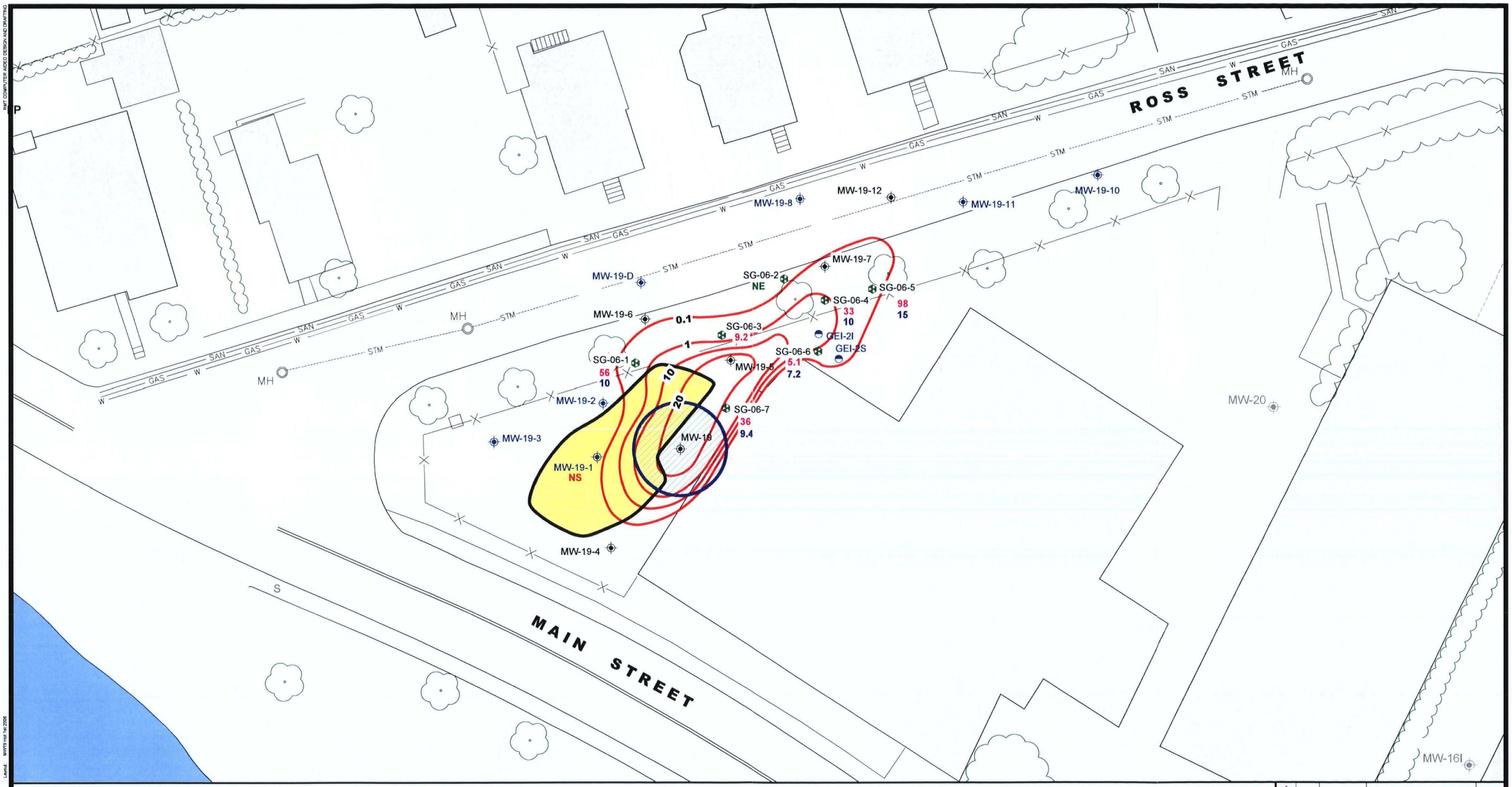
NO.	BY	DATE	REVISION	APP'D.
5.				
4.				
3.				
2.				
1.				

L.E. CARPENTER
WHARTON, NEW JERSEY

MW-19 / HOT SPOT 1 SHALLOW AQUIFER
ISOCONCENTRATION MAP
3rd QUARTER 2009

DRAWN BY:	SJL	DRAWING SCALE:	PROJECT NO. J:\10652\37
CHECKED BY:	JEO	SHOWN	FILE NO. 6527,37,13.dwg
APPROVED BY:	JDD	DATE PRINTED:	**FIGURE 3**
DATE:	October 2009		

RMT
3754 Ranchero Drive
Ann Arbor, Michigan 48108-2771
Phone: 734-971-7080
Fax: 734-971-9022



LEGEND

- MW-20 — ABANDONED MONITORING WELL LOCATION AND NUMBER
- MW-19-7 / 2.86 — QUARTERLY MONITORING WELL LOCATION AND NUMBER WITH CONCENTRATION OF TOTAL BTEX (mg/L)
- GEI-2I — QUARTERLY STATIC WATER LEVEL MONITORING LOCATION
- FENCE LINE
- SG-06-1 / 56 / 10 — SOIL GAS SAMPLE LOCATION AND NUMBER WITH CONCENTRATION OF 1,3 - BUTADIENE AND BENZENE (ppmv)
- 1994 SOIL EXCAVATION
- GAS — GAS
- STM — REGIONAL STORM SEWER LINE
- W — WATER
- SAN — SANITARY SEWER
- MH — MANHOLE
- 30-FOOT DISTANCE CRITERION AS REFERENCED IN SECTION 3.1 OF THE NJDEP VAPOR INTRUSION GUIDANCE, OCT 2005
- 10 — ISOCONCENTRATION CONTOUR FOR TOTAL MAXIMUM BTEX (ppm) IN GROUNDWATER
- NE — NO EXCEEDENCES

NOTES

1. BASE MAP DEVELOPED FROM TOPOGRAPHIC SURVEY PROVIDED BY JAMES M. STEWART, INC. LAND SURVEYORS, DRAWING NO 2793-03.DWG, DATED 02-14-02.
2. NS = NOT SAMPLED.
3. OVERHEAD POWER LINES ROUGHLY PARALLEL TO SANITARY SEWER, GAS AND WATER LINES.

N

0 15' 30' 45' 60'
SCALE IN FEET

NO.	BY	DATE	REVISION	APP'D.
5.				
4.				
3.				
2.				
1.				

L.E. CARPENTER
WHARTON, NEW JERSEY

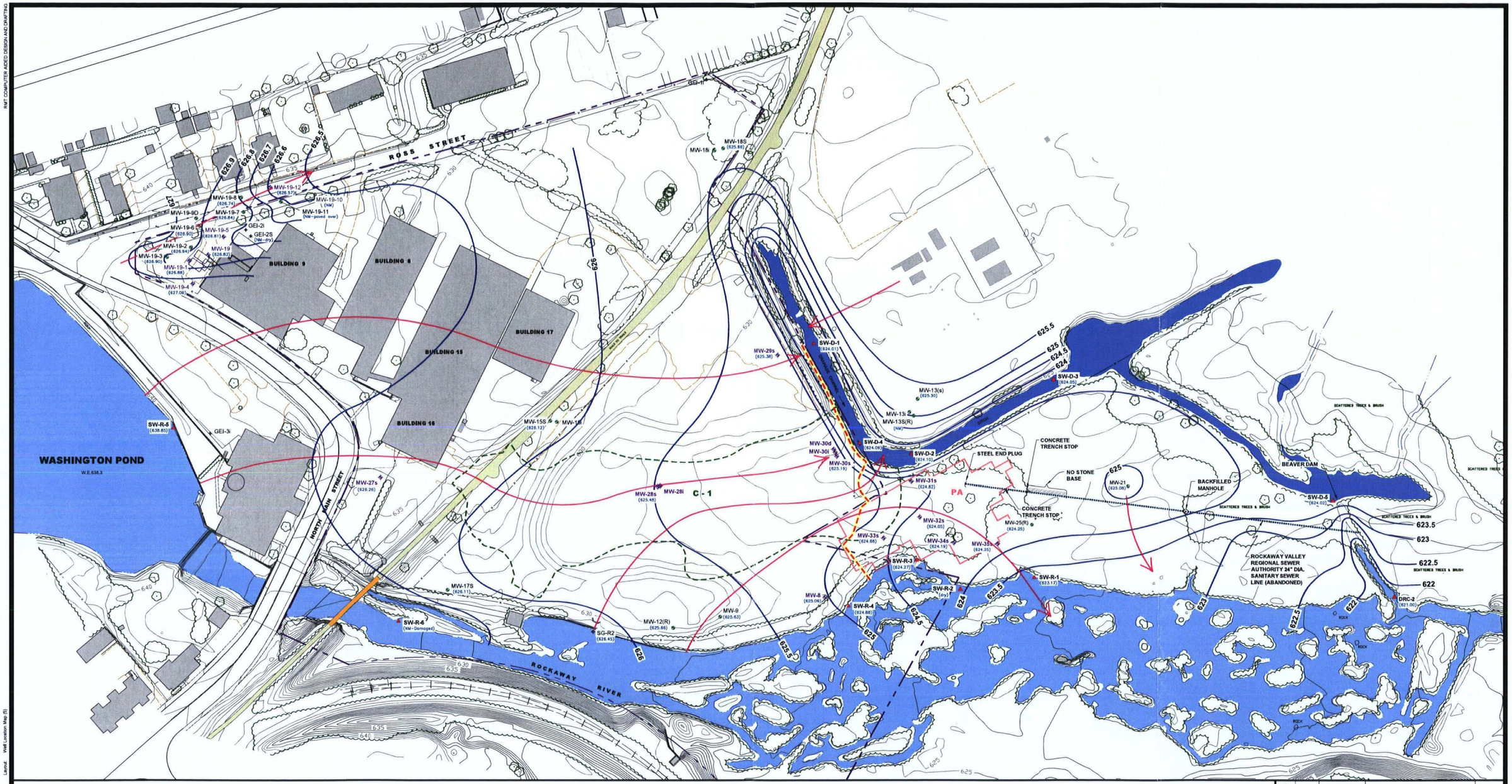
SOIL GAS SAMPLING LOCATIONS AND EXCEEDANCES OF THE GENERIC VAPOR INSTRUSION SCREENING LEVELS

DRAWN BY:	SJL	DRAWING SCALE:	PROJECT NO. J:\06527\37
CHECKED BY:	JEO	SHOWN	FILE NO. 6527,37,14.dwg
APPROVED BY:	JDD	DATE PRINTED:	**FIGURE 4**
DATE:	October 2009		

RMT
3754 Ranchero Drive
Ann Arbor, Michigan 48108-2771
Phone: 734-971-7080
Fax: 734-971-9022

RMT COMPUTER AIDED DESIGN AND DRAFTING

Layout: Well Location Map (6)
Dwg Size: 0.22 Mb
Plot Date: April 2006
Plot Time: 1:50 PM
J:\10552\...\6527_37_15.dwg
Operator Name: LUCIDO, SAM
Drawing Plot Scale: 1:40



LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE LINE
- TREES
- MW-25(R) — GROUNDWATER ELEVATION MONITORING WELL LOCATION AND NUMBER (s = shallow, i = intermediate, d = deep)
- MW-29s — PRMP MONITORING WELL LOCATION AND NUMBER (s = shallow, i = intermediate, d = deep)
- SG-R1 — RIVER POINT SURFACE WATER ELEVATION
- SG-D1 — DRAINAGE CHANNEL POINT SURFACE WATER ELEVATION
- GEI-2i — PIEZOMETER LOCATION
- SW-R-1 — SURFACE WATER SAMPLING LOCATION (D = DITCH; R = RIVER)
- (627.04) — GROUND WATER ELEVATION
- 626 — SHALLOW GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 630 — POST-REMEDIATION GROUND SURFACE ELEVATIONS
- PA — AREA WHERE POB IMPACTED SOILS WERE EXCAVATED
- C-1 — AREA WHERE THE LNAPL SMEAR ZONE WAS EXCAVATED AND LATERAL EXTENT OF SUBSURFACE SLURRY MONOLITH
- WESTERN BOUNDARY OF REGULATED WETLAND

NOTES

1. BASE MAP DEVELOPED FROM TOPOGRAPHIC SURVEY PROVIDED BY JAMES M.STEWART, INC. LAND SURVEYORS, DRAWING NO 2793-03.DWG, DATED 02-14-02 AS REVISED 04-10-07 (DRAWING NO. 314907REV.DWG).
2. FORMER BUILDING OPERATIONS
   - BUILDING 9: RAW MATERIAL, DRUM STORAGE, AND PRINTING
   - BUILDING 8: LAMINATION
   - BUILDING 15 and 17: INSPECTION, STORAGE, AND DISTRIBUTION
   - BUILDING 16: OFFICES
3. AS DESCRIBED IN THE November 2005 RAR (SEE FIGURE 9 IN THAT REPORT), THE SLURRY MONOLITH AT AND PARALLEL TO THE DRAINAGE CHANNEL DITCH ENDS APPROXIMATELY 10 FEET WEST OF THE ACTUAL WATERS EDGE.

0 60' 120' 180' 240'
SCALE IN FEET

NO.	BY	DATE	REVISION	APPD.
5.				
4.				
3.				
2.				
1.				

L.E. CARPENTER
WHARTON, NEW JERSEY

SITE-WIDE SHALLOW GROUNDWATER ELEVATION CONTOURS
3rd QUARTER 2009

DRAWN BY:	SJL	DRAWING SCALE:	PROJECT NO. J10552\37
CHECKED BY:	JEO	SHOWN	FILE NO. 6527_37_15.dwg
APPROVED BY:	JDD	DATE PRINTED:	**FIGURE 5**
DATE:	October 2009		

RMT
3754 Ranchero Drive
Ann Arbor, Michigan 48108-2771
Phone: 734-971-7080
Fax: 734-971-9022

Appendix A
Chronology of Events ~ 1979 to Present (2009)

RMT

Chronology of Events ~ 1979 to Present [2009]
Dayco Corporation/L.E. Carpenter & Co. Superfund Site
Borough of Wharton, New Jersey
USEPA ID No. NJD002168748

1979

- On July 25th, L.E. Carpenter & Company (LEC) performs chemical analysis of PVC waste material collected from the on-site impoundment area.
- LEC submits report to NJDEP on October 2nd regarding the characterization of PVC waste material disposed in the impoundment and an evaluation of remedial alternatives for the impoundment.

1980

- On August 18th, the NJDEP sampled the PVC waste material in the impoundment area, and collected samples from on-site monitoring wells of groundwater and free product (LNAPL).

1981

- Groundwater samples collected by the NJDEP in March and December indicated detectable concentrations of polychlorinated biphenyls (PCBs) in some of the on-site wells. Subsequent, testing of other wells did not show the presence of PCBs.

1982

- On January 29th, LEC entered into an Administrative Consent Order (ACO) with New Jersey Department of Environmental Protection (NJDEP). 1982 ACO required the following:
    1. Remove sludge from impoundment area
    2. Remove free product
    3. Remove dissolved phase contamination form groundwater
    4. Implement a quarterly groundwater monitoring protocol
- LEC excavated 4,000 cubic yards (yd^3) of sludge and contaminated soils from former surface impoundment.
- LEC excavated and removed their starch drying beds.
- LEC installed a network of 10 groundwater monitoring wells to monitor groundwater contamination and free product thickness. Five of the wells were equipped with skimmer pumps to recover floating product.

1983

- On February 24th, an Addendum (1983 Addendum) was added to the 1982 ACO to clarify its provisions.

1984

- On May 11th, LEC initiated passive recovery of floating product using skimmer pumps in monitoring/recovery wells.

1985

- April - LEC was listed on the National Priorities List (NPL) (Superfund).

1986

- On September 26th, LEC entered into an ACO that superseded both the 1982 ACO and 1983 ACO Addendum. Subsequently, LEC agreed to undertake a Remedial Investigation/Feasibility Study (RI/FS) of the LEC facility.
- Quarterly sampling of groundwater commences. Quarterly groundwater monitoring continues at the site to the present day.

1987

- LEC ceased site operations in July.

1989

- Between February and November, LEC completed the field portion of the initial remedial investigation (RI). RI included a soil gas survey, test pit and soil sampling, monitoring well installation and sampling, air sampling, and stream sediment and surface water sampling.
- September - LEC removed asbestos containing material (ACM) from Buildings 12, 13, and 14.
- September - the original electromechanical product recovery system was replaced with a specific gravity-type skimmer system.
- As of November, 4,300 gallons of product removed from water table by passive recovery (May 1984 to November 1989).

1990

- LEC submits the document entitled *Report of Revised Remedial Investigation Findings, L.E Carpenter and Company, Wharton, New Jersey Site* (GeoEngineering and Roy F. Weston, June 1990). Report documents existing site conditions, existing site contaminants, extent and severity of contaminants, routes of contaminant movement, and contaminant effect.
- Based on comments received from the NJDEP, in August LEC performs a supplemental RI. The supplemental RI included additional test pit and soil sampling, stream sediment sampling, and background soil and sediment sampling.
- LEC submits the document entitled *Supplemental Remedial Investigation, L.E Carpenter and Company, Wharton, New Jersey Site* (Weston Services Inc., November 1990).

1991

- Between January and March, LEC performed decommissioning and tank (UST and AST) closure activities. LEC decontaminated, excavated, and removed 16 storage tanks in accordance with an NJDEP-approved closure plan.
- June – Three additional recovery wells are installed to enhance passive free product recovery. Monitoring well MW-21 was installed on Wharton Enterprises property.
- September – Process piping and tanks are dismantled in Building 13. Interior of Building 9 is decontaminated.
- November – Stage 1A Archeological Survey of the site was performed.

1992

- January - Buildings 12, 13, and 14 are razed.
- January - Wetlands Assessment Report of the site was prepared.
- January to February - LEC performs and investigation of a former disposal area discovered during the installation of free product recovery system expansion piping.
- *Baseline Risk Assessment* (BRA) (Roy F. Weston, January 1992) submitted to NJDEP. BRA identifies chemicals of potential concern at the site.
- February - Two additional monitoring wells are installed on Air Products property, and two additional monitoring wells are also installed on Wharton Enterprises property.
- LEC submits the report entitled *Bioremediation and Soil Flushing Treatability Study Report* (IT Corporation, June 1992).
- September - Collection of sediment samples upstream, adjacent to, and downstream of LEC.
- To date, approximately 5,000 gallons of free product have been removed from the water table.
- LEC submits *Final Supplemental Remedial Investigation Addendum for L.E. Carpenter and Company* (Roy F. Weston, September 1992). Supplemental RI documents additional investigations required by the NJDEP and performed by LEC since submission of the RI.

1993

- January to February - LEC installs 23 temporary well points (WP-A, B and C series) to further delineate floating product on site.
- LEC performs geophysical logging via down-hole natural-gamma ray logging of 34 wells, well points and piezometers to develop a better understanding of site stratigraphy.
- October - Submission of *L.E. Carpenter and Company Final Feasibility Study Report*. Report recommends remedial options for the site based on site contaminants and conditions identified during the three previously mentioned RIs.

1994

- April - NJDEP releases Record of Decision (ROD) for LEC site. ROD outlines the factual and legal basis for selecting the remedy for the site. ROD Alternative No. 4 is accepted as the site remedy by NJDEP.
  - Alternative No. 4: Major components of the remedy include floating product/groundwater extraction system installation and operation, remediation via biological treatment of extracted groundwater, excavation and consolidation of DEHP contaminated soils into soil treatment zone, reinfiltration of a portion of treated groundwater (with added oxygen and nutrients) into the unsaturated soil treatment zone via perforated piping to allow *in situ* bioremediation of contaminated soils, recirculate a larger portion of treated water within the capture zone, provide vegetative soil cover for the area of ground water infiltration system, perform spot excavation and disposal of soils containing PCBs, lead, and antimony where levels exceed soil cleanup levels, excavation and disposal of disposal area sludge/fill which may inhibit *in situ* treatment, and establish environmental restrictions on property.

- As a result of agency approval of ROD Alternative No. 4, LEC submitted the document entitled *Workplan for Phase I ROD Implementation* (Roy F. Weston, October 1994), and initiated Phase I Remedial Actions as outlined in the above mentioned workplan. Activities completed were as follows
    1. Organic and inorganic hot spot soil excavation (Inorganic Hot Spot A, B, C, D, & the Waste Disposal Area, the PCB Area, and Organic Hot Spots 1, 2, 3, ,4 ,5 & 6)
    2. Well installation
    3. Percolation testing
    4. Water level monitoring
    5. Groundwater sampling
    6. Aquifer testing
    7. Groundwater modeling
- November - Air line and product discharge lines to the product recovery system were temporarily removed to avoid damage during proposed Phase I ROD implementation field work.

1995

- January 17 - NJDEP verbally approves the backfilling of ID-27 debris generated during the demolition of various site buildings into the foundation of former Bldg.14.
- LEC submitted the document entitled *Quarterly Progress Report* (Volumes 1 and 2, Roy F. Weston, April 1995) documenting the Phase I Remedial Actions taken during 4th quarter 1994. Excavations for Hot Spots 1, 2, 3, 5, 6, A, D & the Waste Disposal Area completed (1,255 yds^3).
- Hot Spots B, C, 4, the PCB Area, and the MW19 areas continue as areas of environmental concern (AEC).
- Soil associated with the completed excavations for organic Hot Spots 1, 2, 3, 5, and 6 (approx. 426 yds^3) were deposited into the Waste Disposal Area excavation as outlined in the October 1994 workplan.
- Soils associated with inorganic Hot Spots A, B, C, D was stockpiled on site pending NJDEP approval to backfill this material in the Waste Disposal Area. In a letter dated August 9, 1995...the NJDEP denied the request.
- October – UST at Silk Mill property is properly decommissioned as per NJDEP regulations.
- As Hot Spots B & C excavations (COC Lead) were significantly larger that the RI had predicted, LEC submitted the document entitled *Lead in Soils Data Compilation* (Weston, December 21, 1995) suggesting that site lead soil contamination maybe the result of historical mining activities.

1996

- During 2nd Quarter 1996, LEC continued with Phase I ROD Remedial Actions in various areas as a continuation of the 1995 efforts. Further investigations were performed at Hot Spots B, C, 1, 4 and the MW19 area located at the northwest portion of the site.
- LEC submits the document entitled *Remedial Action Planning Report* (Weston, November 1996). This report contains revised remedial action recommendations. Remedial option from ROD was proven unfeasible. Different technologies are evaluated. Recommended that existing product skimmer system be improved, use an air sparging/soil vapor extraction system and high vacuum extraction in middle of plume, and conduct a natural attenuation monitoring program.

1997

- LEC submits document entitled *Remedial Action Plan Phase I Free Product Recovery* (RMT, February 1997). This document outlined the installation of thirty fluid recovery wells to remove free product. Floating free product is to be removed from water table by vacuum truck.
- LEC submits a Product Volume Calculation (Weston, July 8, 1997) estimating the total volume of recoverable free product at the site to be between 1,500 to 5,900 gallons.
- August 20th – NJDEP approves the RMT Remedial Action Plan recommending Enhanced fluid recovery (EFR).
- November – EFR begins. EFR will occur monthly at the site. 565 gallons of free product removed to date, as of the end of the year.
- RMT continues the ACO required quarterly monitoring and reporting.

1998

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 1,797 gallons of free product removed to date, as of the end of the year.
- June – LEC continues with MW19 and Hot Spot 1 groundwater delineation efforts submitting two reports *MW19 Delineation* and *Hot Spot 1 Delineation* (both RMT, June 1998).
- LEC submits the document entitled *Workplan to Implement Further Investigative and Remedial Action at MW19/Hot Spot 1, Hot Spots B & C, and Hot Spot 4* (RMT, November 1998). NJDEP approved workplan November 23, 1998.
- LEC initiates groundwater sampling for Natural Attenuation (NA) parameters in 4th quarter. Sampling plan is proposed and approved by the agencies for 1 year.

1999

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 2,362 gallons of free product removed to date, as of the end of the year.
- LEC performs an off-site groundwater investigation (Hydropunch®) at the MW19/Hot Spot 1 area. LEC submits the report entitled *MW19/Hot Spot 1 Off-Site Subsurface Investigation* (RMT, June 1999). Based on agency comments, further delineation is requested by the agency. The workplan entitled *Further Off-Site Groundwater Investigation at MW19/Hot Spot 1* (RMT, August 1999) is submitted.
- April through June - LEC performs a lead soil investigation of the eastern portion of the site. Results of the investigation are submitted in the report entitled *Hot Spot B & C Subsurface Lead Investigation* (RMT, August 1999).

2000

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 2,863 gallons of free product removed to date, as of the end of the year.
- May – LEC submits the document entitled *Free Product Volume Analysis* (RMT, May 2000). Results of free product volume analysis indicated that the total volume of free product was 44,000 gallons. The recoverable portion of free product was approximately 8,000 to 13,000 gallons.

- May - LEC submits the results of the NA groundwater sampling in the report *Evaluation of Remediation of Groundwater by Natural Attenuation* (RMT, May 2000). The results support monitored natural attenuation (MNA) as a replacement for the ROD approved pump and treat remedial option for groundwater impacted with dissolved phase constituents.
- The results of the 1999 MW19/Hot Spot 1 investigation were presented in *MW19/Hot Spot 1 Remedial Investigation Report* (RMT, March 2000). Further groundwater investigation, as requested by the agency, was proposed in the MW19/Hot Spot 1 area in the workplan entitled *Further Off-Site Groundwater Investigation at MW19/Hot Spot 1* (RMT, October 2000)

2001

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 3,277 gallons of free product removed to date, as of the end of the year.
- Based on agency comments and discussions, LEC undergoes a series of workplan requests to investigate multiple issues at LEC: 1) Delineate and determine the source of the lead contamination existing in on-site soils (historical Hot Spots B & C), 2) propose the continued investigation of MNA, and 3) investigate technical alternatives for free product removal/remediation.
- LEC submits documents entitled *Revised Workplan for Delineating and Characterizing Lead Concentrations in Soil* (RMT, May 2001); *Workplan to Evaluate Free Product Remedial Strategies* (RMT, November 2001); *Amendment to Workplan to Evaluate Free Product Remedial Strategies* (November 2001); and *Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater* (RMT, April 2001).
- November - Lead in soil investigation conducted at site. Investigation delineated lead hot spot areas above the established cleanup goals remaining at the site (historical Hot Spots B & C).
- December - A free product investigation was conducted to aid in developing strategies in remediating the free product existing on the water table.

2002

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 3,635 gallons of free product removed to date, as of the end of the year.
- Submitted both the *Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy* and the *Nature and Extent of Lead in Soils and Groundwater [Vol(s) 1 and 2]* in March 2002. These reports defined the lateral extent of lead impacted soil on-site and conceptually laid out the proposed remedial approach respectively (excavation and on-site reuse).
- Received favorable determination regarding the application of historical waste codes at the LEC site during remediation from USEPA and NJDEP (*i.e.*, elimination of F003, F005 and U028 codes from the free product and subsequently the free product saturated soils). Free product will be characterized as a D001 ignitable hazardous waste. Free product saturated soil will not be listed as hazardous, but rather deemed hazardous based on characteristics alone. If the characteristic of ignitability is removed (*i.e.*, via solidification, binding w/CKD, Portland Cement), and less than 1% free liquids remain, the D001 code will be removed. Subsequently, the waste will be managed as a non-hazardous special waste.
- Prepared a final response to NJDEP comment letter dated July 26, 2002 regarding the reports entitled *Nature and Extent of Lead in Soils and Groundwater* (RMT, March 2002), and *Findings and*

Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002). These draft responses included the discussions and agreements made during the September 19, 2002 meeting with NJDEP and USEPA at the USEPA Edison Laboratories complex in Edison, NJ.

- Received conceptual approval of the remedial approach form both USEPA and NJDEP. A Lead Soil FFS was required as a condition of approval to prepare an ESD and change the 1994-ROD for lead soils from excavation and off-site disposal to excavation and beneficial on-site reuse.

2003

- Monthly EFR and quarterly groundwater monitoring and reporting continue. 3,906 gallons of free product removed to date, as of the end of the year.
- Prepared and submitted the *Focused Feasibility Study Lead-Impacted Soil Remediation* (February 2003). Regulatory review period in progress.
- Submitted the LEC Remedial Project Schedule [GANT Chart] outlining the proposed remedial schedule from the 2/28/03 submittal of the Lead Soil FFS to a construction mobilization date to initiate source removal actions 8/31/04.
- In February 2003, RMT prepared the report entitled *Focused Feasibility Study (FFS)Lead-Impacted Soil Remediation* which compared alternate remedial approaches for on-site lead impacted soils. During discussions at the September 19, 2002 meeting regarding the scope of the FFS, RMT was asked to include in the FFS, a write-up regarding how the lead soil and free product remedial actions were interrelated. This information was provided as requested and regulatory comments regarding the FFS were outlined in the NJDEP letter dated July 3, 2003. The FFS was withdrawn from the public record (Ref. NJDEP letter dated December 23, 2003) based on a decision to dispose the lead soils off-site as was outlined in the original 1994 Record of Decision (ROD), as opposed to beneficial reuse as fill material during site remediation.
- Will prepare a Remedial Action Work Plan (RAWP) outlining the engineering design and specification, notification and permitting, construction, and contingency related scopes of work associated with implementing the United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP) approved remedial strategy outlined in the report entitled *Findings and Recommendation Regarding a Conceptual Free-Product Remediation Strategy* (RMT, March 2002).

2004

- Monthly EFR and quarterly groundwater monitoring and reporting continue. Monthly EFR events continue until Sept 2004 when they are discontinued in lieu of performing the source reduction remedial action in 2005. A total of 4,053 gallons of free product [liquid and vapor phase] were removed to during the EFR extraction process (Nov 1997 to Sept 2004).
- A natural resource evaluation was performed by JFNew & Associates, Inc., (JFNew) on March 26, 2004. This evaluation focused on the identification of wetland areas, threatened and endangered species and associated habitats, and floodway and floodplain areas in relation to the activities to be proposed in the source reduction remedial project.
- Cultural resources issues were investigated by Gray and Pape, Inc. (G&P). G&P performed a site visit on March 25, 2004, and held detailed conversations with Mr. Michael Gregg of the State Historic Preservation Office (SHPO). Given the extensive surficial disturbance and the absence of potential historic deposits at the site, Mr. Gregg agreed that the possibility of identifying historic properties on the site was low. Given these conditions, Mr. Gregg suggested that Gray & Pape,

Inc. submit a Letter Report documenting that the project had no potential to affect historic properties. Based on these conclusions drawn by both SHPO and G&P, a Phase 1B Archeological Survey was not warranted.

- A list of activities completed to obtain all sediment and erosion control, cultural resource, wetland and historic preservation approvals to implement the RAWP are provided below:
  - 04/16/04 Submit the report entitled Letter Report Documenting the Potential for the Proposed Remediation at the L.E. Carpenter Site to Affect Historic Properties, Borough of Wharton, Morris County, New Jersey. Section 106 of the National Historic Preservation Act of 1966 compliance issue.
  - 09/23/04 Submit Source Reduction Soil Erosion and Sediment Control Plan and Plan Set.
  - 09/27/04 Reinitiate informal Section 7 of the Endangered Species Act of 1973 consultation with the U.S. Fish and Wildlife Service (USFWS) [NJDEP and USEPA RAWP review condition]
  - 09/30/04 Receive NJ Historic Preservation Office (HPO) letter of compliance with Section 106 of the National Historic Preservation Act of 1966
  - 10/05/04 Submit Freshwater Wetlands General Permit 4 (GP4) Application and Freshwater Wetlands Mitigation Plan
  - 10/06/04 Submit Stream Encroachment Permit Application
  - 11/08/04 Submit Revised Source Reduction Soil Erosion and Sediment Control Plan and Plan Set
  - 11/17/04 Receive Morris County certification of the Source Reduction Soil Erosion and Sediment Control Plan and Plan Set
  - 11/29/04 Receive USFWS response to informal Section 7 consultation [NJDEP and USEPA RAWP review condition satisfied]
- RMT prepared the document entitled *Workplan To Perform a Pilot Excavation* to further evaluate field implementation details specific to the source reduction excavation (e.g., groundwater control, % cobbles/boulders, site staging and logistics).
- RMT prepares and submits the report entitled *Remedial Action Work Plan (RAWP)* (April 2004) outlining the proposed source reduction strategy for the site. The source reduction strategy outlined in the RAWP was developed as a result of comments provided in the NJDEP letter dated July 26, 2002 summarizing the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) reviews of the reports entitled *Nature and Extent of Lead in Soils and Groundwater - Volumes I & II* (RMT, March 2002) and *Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy* (RMT, March 2002).
- Review and response to regulatory comments (NJDEP & USEPA) on the RAWP began with receipt of the regulatory comment letter dated July 21, 2004. Comments focused on wetland permitting, applying the residential PCB standard of 0.49 ppm to soils proposed for excavation in the Wharton Enterprise property to the east, post excavation soil sampling, target depth of the smear zone excavation (622 ft AMSL), and monitoring well abandonment. RMT response to comment letter dated Sept 10, 2004 were prepared to address the comments presented in the July 21, 2004 letter. RMT received NJDEP comment letter dated Oct 20, 2004 raising more issues with regards to the RAWP. RMT responds to comments in the letter dated Nov 5, 2004 and conducts a conference call to put all concerns to bed: no smear zone soil post excavation soil sampling based

on commitment to dig to 622 ft AMSL or deeper depending on pre-construction boring results slated for field implementation in 4Q04, and permission to abandon all monitoring devises with the remedial area. Regulatory approval of the RAWP provided by NJDEP and USEPA in the NJDEP letter dated Dec 10, 2004.

- RMT conducts the pre-construction boring [smear zone vertical extent definition] and PCB soil delineation [determine excavation boundaries] activities in December 2004, and abandons all monitoring wells, well points, staff gauges, and caisson wells outlined on Table 7 of the RAWP.

2005

- Quarterly groundwater monitoring and reporting continue.
- RMT prepares the report entitled *Pre-Construction Boring Report* (Jan 2005). This report divides the smear zone excavation extent outlined in the RAWP into 17 subsections each with varying smear zone thickness elevations proposed for excavation. The report also outlines the PCB soil excavation extent given the new residential criteria of 0.49 ppm.
- RMT receives NJDEP comment letter dated April 1, 2005 requiring perimeter PCB post excavation soil sampling vs. no sampling w/excavation to clean locations defined in the *Pre-Construction Boring Report*. RMT agrees to perform perimeter PCB post excavation soil sampling in the response to comment letter dated April 7, 2005.
- On Feb 24, 2005 RMT receives NJDEP LURP Stream Encroachment Permit [File No. 1439-04-0001.1 (FHA 040001 SEP)]
- On Feb 25, 2005, RMT receives NJDEP LURP Freshwater Wetlands Statewide General Permit No 4. [File No. 1439-04-0001.1 (FWW 040001)]
- **The source reduction remedial action kicks off at the site pre-construction meeting held on Jan 6, 2005. A chronology of events is presented below:**
  - 01/07/05 through 01/27/05 Perform initial site setup activities:
    - establish construction office
    - perform site orientation and baseline health and safety training
    - set up air monitoring stations [e.g., weather station, data loggers, OVA, Mini RAM]
    - receive required heavy equipment and materials
    - establish site control
    - install all silt fence
    - set up waste management area [e.g., truck scale and personnel area and routing signs]
    - stabilized site access
    - complete site clearing and grubbing of the main excavation area
    - Initiate excavation and confirmatory sampling of Area A-1 lead soils
  - 01/27/05 through 02/03/05: Continue excavation and confirmatory sampling of Area A-1 lead soils, and clear and grub area northwest of the rails-to trails to facilitate clean soil [Area C-1] stockpiling for eventual on-site reuse and clean fill
  - 02/04/05 through 02/10/05: Continue excavation and confirmatory sampling of Area A-1 lead soils. Initiate excavation and confirmatory sampling of Area A-3 lead soils. Complete

excavation and confirmatory sampling of Area A-2 lead soils. Excavate and cap a sump and water line discovered while excavating A-1 lead soils around former Bldg. 13

- 02/09/05: Excavate, over pack, sample and dispose eleven (11) 55-gallon drums discovered while excavating A-1 lead soil base excavation grid points A1-G1 and A1-H1 and side wall grid points A1-GN and A1-HN [around the former MW-11 well cluster]
- 02/10/05: Conduct On-Site Monthly Meeting
- 02/11/05 through 02/25/05: Complete all lead soil are (A-1, A-2, and A-3) excavation, confirmatory sample, transportation and disposal activities [9,292 tons]. Complete as-built survey of A-1, A-2 and A-3 excavation areas. Continue B-1 process waste area excavation activities based in discovery of process waste and drums around the former MW-11 well cluster. Initiate Area C-1 clean soil excavation and confirmatory sampling activities
- 02/26/05 through 03/02/05: Continue B-1 process waste area excavation and confirmatory sampling activities. Initiate excavation and confirmatory sampling of the B-2 process waste area. Initiate excavation and confirmatory sampling of the PCB area. Initiate the set up of the slurry batch plant and ancillary equipment to facilitate smear zone excavation activities
- 03/03/05 through 03/10/05: Complete excavation and confirmatory sampling of the B-1 and B-2 process waste areas (450 tons). Continue PCB area excavation and confirmatory sampling. Initiate batch plant/slurry mix testing in preparation for smear zone excavation. Setup survey control (depth master) for smear zone excavation under slurry
- 03/07/05: Sample of rock pile excavated during process waste area excavation.
- 03/11/05 through 03/24/05: Complete PCB excavation and confirmatory sampling (2,727 tons). Initiate PCB area backfilling activities. Complete batch plant/slurry mix testing in preparation for smear zone excavation. Initiate smear zone excavation activities
- 03/16/05: Conduct on-site monthly meeting
- 03/25/05 through 05//13/05: Continue smear zone excavation. Dispose of rock pile excavated during process waste area excavation. Import 500 tons of crushed stone to use in smear zone excavation in lieu of using process waste rock pile. Excavate and sample limited PCB areas exhibiting PCB concentrations >490 ppb
- 04/14/05: Conduct on-site monthly meeting
- 05/14/05 through 05/24/05: Continue smear zone excavation. Excavate two additional smear zone areas (southern and western seeps) . Secure Mt. Tilcon as borrow source for main excavation general fill and top soil. Complete PCB excavation area subgrade backfilling activities. Complete excavation of drainage ditch side slope and adjacent areas. Survey as-built excavations (process waste areas, main excavation footprint)
- 05/23/05: Clean batch plant frac tank and containerize and dispose decon waters
- 05/25/05 through 06/07/05: Complete all smear zone excavation activities (34,052 tons). Demobilize slurry batch plant and ancillary equipment. Initiate backfilling of main excavation footprint. Complete PCB excavation area final grade backfilling. Terminate receipt of cement kiln dust (CKD) used during smear zone excavation and material processing (3,959 tons). Survey PCB area final grades (wetland areas and transition zones). Initiate demobilization of various equipment items
- 05/26/05: Conduct on-site monthly meeting

- 06/08/05 through 06/30/05: Complete all site final grade backfilling activities. Complete all site surveying. Hydro seed main excavation area (rails-to-trails to western transition zone boundary). Demobilize remaining heavy equipment.
- 6/24/2005: Conduct on-site post final grade meeting with NJDEP LURP (wetland areas and transition zones). NJDEP LURP approval to proceed with wetland restoration activities provided. Repair fencing and rails-to-trails asphalt surface
- 06/27/05 to 06/29/05: Restore wetland areas and transition zones

➢ RMT submits the report entitled *Wetland Mitigation Construction Final Report* (RMT, Aug 28, 2005) documenting wetland restoration activities following source reduction remedial activities.

➢ Documentation of the remediation was presented in the report entitled *Remedial Action Report (RAR) Source Reduction* (RMT, November 2005).

➢ Post remedial monitoring requirements were outlined in the report entitled *Post Remedial Monitoring Plan (PRMP)* (RMT, October 2005). Development of the PRMP was a condition of RAWP approval.

➢ RMT submits the report entitled *2005 Compensatory Mitigation Monitoring Report* (JFNew, Dec 2005) documenting the permit required monitoring in the restored wetland areas (5 yrs of monitoring required; 2005 is yr No. 1)

2006

➢ Quarterly groundwater monitoring and reporting continue.

➢ Jan 4, 2006, RMT receives conditional approval from NJDEP LURP on the *2005 Compensatory Mitigation Monitoring Report.*

➢ RMT receives Feb 22, 2006 NJDEP letter which outlines conditions for approval of the PRMP.

➢ Feb 26, 2006 RMT submits the 2005 Biennial Hazardous Waste Report.

➢ In a Dec 22, 2005 NJDEP letter documenting comments on the 3Q05 monitoring report, LEC was required to evaluate soil gas in the MW19/Hot Spot 1 area in accordance with the new NJDEP Vapor Intrusion Guidance Document (Oct 2005). Soil gas sampling was conducted by RMT on March 1, 2006. Field investigation results were outlined in the report entitled *Soil Gas Investigation in the MW19/Hot Spot 1 Area* (RMT, May 2006).

➢ Partial PRMP Implementation activities are completed a LEC in June 2006. The five (5) monitoring wells located in the wetland are not installed due to permitting requirements, however the remaining seven (7) monitoring wells are installed in the source reduction remedial area, and 1 well in the MW19/Hot Sot 1 area; MW-12).

➢ Regulatory comments on the RAR are received in the NJDEP letter dated June 14, 2006. RMT response to regulatory comments was prepared and submitted on August 25, 2006. Response focused on the fact that MNA was not an approved groundwater remedy and that evaluations are ongoing, the termination of emergency response events for sheen in the ditch and river as a result of no sheen present following implementation of the source reduction, a clarification of excavation extents, slurry floor permeability discussions, and smear zone target and as-built excavation depths.

➢ August 14, 2006, RMT submits a GP-14 Permit Application to NJDEP LURP to authorize installation of the five (5) remaining wells in the Wharton Enterprise wetland area.

- A new NJDEP case manager [Glenn Savary] is assigned to LEC
- Wetland monitoring and invasive species control events are performed in accordance with the GP-14 permit in May and October 2006 respectively.
- Per NJDEP conversation regarding the Remedial Action Progress Reports (RAPR). All quarterly monitoring report to be call RAPR per new Sept 2006 Grace Period Rules. New rules have caused delay in the receipt of comments on numerous reports. [NJDEP & USEPA Review of 1Q06, 2Q06, 3Q06 Quarterly Monitoring Reports; MW19/Hot Spot 1 Soil Gas Investigation (May 2006), RMT Response Document [RAR Source Reduction Comments] (Aug 25, 2006), RMT Response Document [PRMP Comments] (1Q06 Monitoring Report)].

2007

- RMT submits the *2006 Compensatory Mitigation Monitoring Report* on Jan 10, 2007. LURP comments are received Feb 5, 2007. RMT prepares response the LURP comments on April 9, 2007.
- 1Q07 event occurs Feb 5-9 2007. 1Q07 RAPR submitted May 3, 2007.
- RMT has had numerous communications with NJDEP LURP regarding the GP-14 permit application in Aug 2006. Resolution: Modify the existing Stream Encroachment Permit for the mounded well design of the 5 wetland wells.
- Stream Encroachment Modification submitted to LURP March 23, 2007.
- Wetland monitoring and invasive species control events are performed in accordance with the GP-14 permit in June and September 2007 respectively. RMT submits the *2007 Compensatory Mitigation Monitoring Report* on Dec 20, 2007.
- 2Q07 monitoring event occurred June 25 - 28, 2007. 2Q07 RAPR submitted July 30, 2007.
- RMT reviews regulatory response to the report entitled *Soil Gas Investigation in the MW19/Hot Spot 1 Area* dated June 20, 2007.
- 3Q07 monitoring event occurs Sept 10 - 14, 2007. 3Q07 RAPR submitted Oct 31, 2007.
- RMT receives a 45-day extension to further investigate the MW19/HS 1 area and submits a Remedial Action Selection Report [RASR] dated Sept 4, 2007.
- Regulatory approval of the RAR for Source Reduction, including response to comments dated June 14, 2006, August 25, 2006, and July 13, 2007, received from NJDEP on Sept 14, 2007.
- RMT received the LURP GP-14 permit to install the 5 mounded monitoring wells in the Wharton Enterprise wetland area on Nov 16, 2007.
- 4Q07 monitoring event occurs Dec 3 - 6, 2007. 4Q07 RAPR submitted Jan 30, 2008.

2008

- 1Q08 event occurs Feb 18 - 22, 2008. 1Q08 RAPR submitted May 2, 2008.
- NJDEP/LURP approval on the modified Stream Encroachment Permit application received Feb 29, 2008.
- Five [5] remaining PRMP monitoring wells are installed in the wetland area, and the wetland disturbance from installation restored April 7 - 12, 2008.

- 2Q08 event occurs May 5 - 9, 2008. 2Q08 RAPR submitted Aug 19, 2008.
- Spring and fall 2008 wetland monitoring and invasive species control events conducted May and Sept 2008 respectively.
- RMT receives an Notice of Deficiency [NOD] letter dated June 19, 2008 acknowledging receipt of the 2Q06, 3Q06, 4Q06, 1Q07, 2Q07, 3Q07, 4Q07 and 1Q08 RAPRs. Deficiencies 1) Rockaway River surface water classification, 2) impacted groundwater discharges to the drainage ditch and river. LEC is required to prepare a Remedial Investigation Workplan [RIW] within 60 days following receipt of the letter [on or before Aug 24, 2008]. RMT submits the MW-30 area RIW on Aug 22, 2008.
- 3Q08 event occurs July 21 - 25, 2008. 3Q08 RAPR submitted November 6, 2008.
- LEC receives letter from USEPA dated July 30, 2008 outlining USEPA's intentions to discuss MNA evaluation of site-wide groundwater in addition to a focused RI/FS of the MW19/HS1 area. Draft ACO and SOW are also attached. LEC response letter sent Sept. 3, 2008 requesting USEPA reconsider the need for an AOC and/or a focused RI/FS in the MW-19/HS1 area.
- RMT receives NJDEP NOD dated October 16, 2008 regarding source material and soil delineation deficiencies in the MW19/HS1 area following regulatory review of the Remedial Action Selection Report [RASR] dated Sept 2007. Oct. 16, 2008 NOD requires the preparation and submittal of a Remedial Investigation Workplan [RIW]. MW19/HS1 area RIW submitted November 14, 2008.
- LEC receives a letter from the USEPA dated October 30, 2008 outlining the transfer of lead enforcement agency at the Wharton, NJ site from NJDEP to USEPA. Per the USEPA's request, LEC acknowledges their letter with a short letter response, dated November 11, 2008, re-iterating their intent to continue to work with the USEPA, as they have done with the NJDEP, at the Wharton, NJ site.
- 4Q08 event occurs October 27 - 30, 2008. 4Q08 RAPR submitted January 27, 2009.

2009

- RMT submits MW19/Hot Spot 1 Remedial Investigation and Remedial Action Letter of Intent (LOI) dated January 5, 2009. Outlined streamlined approach to remediating MW19/HS1 area by combining Nov '08 RIW and Sept '07 RASR. Specifically, the LOI proposed concurrent implementation of investigation and remediation, and focused the remedial alternative on soil excavation only.
- 1Q09 event occurs January 12 - 15, 2009. 1Q09 Quarterly Monitoring Report (QMR) submitted April 30, 2009.
- RMT receives USEPA and NJDEP comments on the MW-30 area RIW attached to emails dated January 22, 2009 and January 30, 2009, respectively.
- RMT receives a draft LEC SOW from USEPA in an email dated March 5, 2009. RMT and LEC edit and submit the draft LEC SOW via email to USEPA on March 24, 2009. Main SOW edits focus around separation of the RAW, RA and RAR phases for the MW-30 and MW-19/HS1 areas, and based on conversations and emails, EPA's waiver of the RD requirements for the MW19/HS1 area. The revised Dayco UAO and SOW are received via email from USEPA on July 6, 2009.
- 2Q09 event occurs April 6-10, 2009. 2Q09 QMR submitted July 28, 2009.
- LEC receives a letter from the NJDEP on June 22, 2009 outlining NJDEP's view that all required documents be submitted to NJDEP with copies being sent to the USEPA until the UAO is issued.

Subsequent electronic communications are had between LEC and USEPA addressing LEC's concerns regarding duplicative reporting requirements from the two agencies.

- 3Q09 event occurs July 20-24, 2009. 3Q09 QMR is presently being prepared.
- Final UAO and SOW documents are received by LEC via certified mail on July 24, 2009. A letter formally requesting a hearing via conference call to clarify several points wrt to the UAO and SOW was emailed to USEPA on July 27, 2009. Conference call held August 3, 2009. USEPA assumes lead role and UAO and SOW become effective August 6, 2009.
- RMT receives a request from USEPA on September 2, 2009, to rename the August 2008 MW-30 RIW and the November 2008 MW19HS1 RIW as RD Work Plan Addendum No. 1 and No.2, respectively. Changes were made as requested and both documents were approved by the USEPA in their email dated October 5, 2009.
- *Addendum 1 to the 2004 Remedial Action Workplan,* detailing the streamlined remedial approach for both the MW-30 area and the MW19HS1 area, was submitted on September 4, 2009 and is currently under USEPA review.
- Monthly Progress Report No. 1 is submitted to the USEPA on September 10, 2009.

Appendix B
Project Correspondence and Report Summary

Project Correspondence Summary
Dayco Corporation/L.E. Carpenter Co.
Borough of Wharton, New Jersey
USEPA ID. No. NJD002168748

Date	Author	Author's Employer	Recipient	Recipient's Employer	Comments
December 11, 1991	Cris Anderson	LEC	Ms. Christina Purcell	NJDEP	Response to NJDEP letter. Outlines LE Carpenter site building demolition plans and waste classification of demolition rubble. Building 9 has been inspected for stained areas, but will not be demolished. Process piping was removed from Buildings 13 and 14. Demolition of buildings 10, 13, 14 is proposed minus foundations.
February 26, 1993	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Response to comments on LEC Final Feasibility Study Report. Weston questions the NJDEP's intention to select a disposal option for treated groundwater without having enough technical data to make a good decision. Weston defends its choice of discharge to groundwater via re-injection.
May 10, 1993	Kevin Hansen	Roy F. Weston	Ms. Christina Purcell	NJDEP	Presents Well Point and Geophysical Logging methods, results, and conclusions.
June 30, 1993	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Summarizes proposed revisions to Feasibility Study - Alternative 4, a reconceptualized strategy for groundwater remediation more appropriate to the site. New strategy would be implemented in two phases, both phases are described in detail.
May 9, 1994	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	LEC Remediation Project scoping and scheduling, preparation for meeting on May 11, 1994. Outlines topics of discussion for meeting, e.g., scope, schedule, critical tasks, etc.
October 18, 1994	John Filippelli	USEPA Region II	Janet Feldstein	Central New Jersey Section II	The USEPA performed a Cultural Resources Survey for the RA Workplan to determine whether proposed excavations will affect areas that are sensitive for the discovery of cultural resources. Three "hotspots" are considered sensitive, so it is recommended that a consultant be present during excavation.
November 1, 1994	Ms. Christina Purcell	NJDEP	Cris Anderson	LEC	NJDEP approves LEC's revised Workplan for Phase I ROD provided the comments detailed in the letter are addressed.
November 7, 1994	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Response to NJDEP comments to the Workplan for Phase I ROD Implementation dated Oct. 1994.
December 7, 1994	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Summarizes agreement between Weston and NJDEP to postpone 4th quarter sampling from Dec. '94 to Jan. '95.
January 11, 1995	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Weston requests permission from NJDEP to consolidate non-hazardous soils excavated from inorganic hot spots A, B, C, D within the waste disposal area.
January 13, 1995	Laura Amend-Babcock	Roy F. Weston	Ms. Christina Purcell	NJDEP	Outlines reasons for postponing 4th quarter groundwater sampling from Jan. '95 to Feb. '95.
January 19, 1995	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Confirms permission granted by NJDEP to reuse ID-27 rubble as backfill for Building 14 foundation.
February 27, 1995	Ms. Christina Purcell	NJDEP	Cris Anderson	LEC	Response to 1/11 and 1/19 letters, NJDEP does not allow LEC to dispose of inorganic hot spot soil in disposal areas. MW-19 and MW-20 should be added to the quarterly monitoring network. A possible future replacement of MW-12 is discussed.
March 15, 1995	Martin O'Neill	Roy F. Weston	Ms. Christina Purcell	NJDEP	Response to 2/27 letter. Weston would like to reuse hot spot soils on site, does not agree with including MW-19 and MW-20 to quarterly monitoring network, Weston does not believe a product layer exists around MW-12.
April 24, 1995	Daniel Van Voorhis	Roy F. Weston	Ms. Christina Purcell	NJDEP	Confirms that first quarterly groundwater sampling was performed in Feb. '95 and next event will be in May '95.
June 7, 1995	Daniel Van Voorhis	Roy F. Weston	Ms. Christina Purcell	NJDEP	Second quarterly sampling date revised to week of June 12th. The revised sampling plan is outlined.
July 28, 1995	Daniel Van Voorhis	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Weston proposes some modifications to the scope of work regarding groundwater data collection presented in "Workplan for Phase I ROD Implementation." Modifications include water level/product thickness measurements, redevelopment of RW-2, aquifer pumping tests, one monitoring point installation, MW-24 abandonment, infiltration tests, etc.
July 28, 1995	Daniel Van Voorhis	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Cover letter for Second Quarter Progress Report 1995 and Revised Scope of Work dated July 29, 1995 for upcoming aquifer test activities. Weston plans to commence aquifer testing program within 3 weeks unless advised otherwise by NJDEP.
August 4, 1995	Daniel Van Voorhis	Roy F. Weston	Tony Cicatiello		Materials related to upcoming press conference at Wharton, NJ. Includes NJDEP fact sheet, recent milestones and future activities, and older material for historical perspective.
August 9, 1995	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Addresses issues regarding soil remediation. DEHP was found in hot spot soil along with lead, so NJDEP will not allow disposal of this soil in waste disposal areas. The NJDEP will also not grant Weston's request to change the lead remediation level of 600 ug/kg.
August 18, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Response to 8/9 letter, regarding inorganic soil disposal location, Weston claims lead in soil is too low to inhibit in situ treatment, lead levels are site wide issue.
August 21, 1995	Ms. Gwen Barunas	NJDEP	Daniel Van Voorhis	Roy F. Weston	Comments on Revised Scope of Work dated 7/28/95, abandonment of 8 monitoring wells rejected, aquifer pumping test proposal must be submitted.
August 29, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Response to 8/22 letter from NJDEP. Weston will proceed with well abandonment when NJDEP. agrees, aquifer pump tests will be initiated 1 week after 9/28 meeting.

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Date	Author	Author's Employer	Recipient	Recipient's Employer	Comments
October 18, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Contaminant delineation plan at MW-19. VOCs are present in MW-19 area. Sampling plan is proposed.
October 31, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Describes revised "Workplan for Phase I ROD Implementation" which includes aquifer testing
November 16, 1995	Ms. Gwen Barunas	NJDEP	Martin O'Neill	Roy F. Weston	NJDEP states that no further action is necessary on parcel of property west of Main St. with underground storage tank. Tank was removed and no contamination remained.
November 21, 1995	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Comments on Contaminant Delineation Plan at MW-19. Lab analysis needed to confirm clean zone boundary, MEK must be added to parameters, different analytical methods should be used.
November 28, 1995	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Department disagrees with Weston's model of a single aquifer, but allows Weston to proceed with the aquifer test. NJDEP. believes the proposed short term infiltration tests will be ineffective and requests further assessment and pilot studies.
December 1, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Outlines sampling plan for PCB delineation on Air Products property adjacent to LEC site.
December 5, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	(Not sent) A replacement MW-12 is not required since a product layer is not believed to be present at the well.
December 21, 1995	Martin O'Neill	Roy F. Weston	Ms. Gwen Barunas	NJDEP	(Draft) Response to NJDEP's 11/28 letter. Weston disagrees that the shallow aquifer is two separate zones rather than one, disagrees with the NJDEP contamination assessment, and with all other NJDEP comments.
October 10, 1996	Jeffrey A. Smith, Suthan Suthersan	Geraghty & Miller, Inc.	Cris Anderson	LEC	Technical memo and revised scope of work and cost estimate for additional data collection/evaluation at the site to supplement Weston's work.
October 17, 1996	Mark Briggs	RMT	Bill McCormick	Vinyl Plastics, Inc.	Describes land disposal restrictions for DEHP.
October 21, 1996	John D. Wylock, Bruce McClellan	Roy F. Weston	Cris Anderson	LEC	Remedial Action Plan Scope of Work
December 9, 1996	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	NJDEP comments on Aquifer Testing Summary Report dated 10/10/96.
December 18, 1996	John D. Wylock	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Response to NJDEP comments on Aquifer Testing Summary Report.
January 17, 1997	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Draft letter with NJDEP. comments on Second Quarter Progress Report dated August 1996.
February 13, 1997	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Response to Weston's response to NJDEP comments dated 12/18/96. NJDEP. does not require Weston to revise the Aquifer Testing Summary Report, but provides information to consider.
April 17, 1997	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	NJDEP. comments on "Remedial Action Plan for Phase I - Free Product Recovery" dated 2/21/97.
May 27, 1997	Dean Maraldo	USEPA Region II	Stephen Cipot	USEPA Region II	Comments on "Remedial Action Plan for Phase I - Free Product Recovery"
June 12, 1997	Cris Anderson	LEC	Ms. Gwen Barunas	NJDEP	RMT response to NJDEP and USEPA comments on "Remedial Action Plan for Phase I - Free Product Recovery"
June 24, 1997	Thomas Laudicina	Roy F. Weston	Ms. Gwen Barunas	NJDEP	List of Monitoring Well Action Items (repair, replace, abandon) based on 6/11/97 site visit.
July 3, 1997	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	USEPA's comments on "Remedial Action Plan for Phase I - Free Product Recovery" dated 2/21/97.
July 8, 1997	Thomas Laudicina	Roy F. Weston	Cris Anderson	LEC	Product volume calculation.
July 23, 1997	Thomas Laudicina	Roy F. Weston	Cris Anderson	LEC	Request for Authorization for Weston to conduct natural attenuation sampling.
July 30, 1997	Thomas Laudicina	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Summary of monitoring well activities conducted during the week of July 21, 1997.
August 8, 1997	Carole Peterson	NJ Remediation Branch EPA Region II	Bruce Venner	NJDEP	EPA's comments on additional work proposed in Section 4.0 of Second Quarter Progress Report for August 1996. These comments are the result of a data review and site visit on 6/17/97. Issued addressed include lead levels, drainage ditch sampling, and DEHP levels.
August 20, 1997	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	NJDEP and USEPA have reviewed the response to comments on the "Remedial Action Plan for Phase I" submitted by RMT. The responses are acceptable and work may begin.
August 22, 1997	Bruce Venner	NJDEP	Carole Peterson	NJ Remediation Branch EPA Region II	Background lead samples should be taken, additional risk assessment not required, NJDEP. agrees with EPA that 2 more wells should be installed.
September 23, 1997	Thomas Laudicina	Roy F. Weston	Ms. Gwen Barunas	NJDEP	Cost to implement product recovery.
January 28, 1998	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Weston abandoned wells MW-11I and MW-11D without NJDEP approval, so 2 new wells should be installed in the same area. Comments on the Second Quarter 1997 Progress Report concerning the improper use of a peristaltic pump, and lack of sampling in the ditch.
February 7, 1998	Ms. Gwen Barunas	NJDEP	Cris Anderson	LEC	Comments on "Lead in Soil Data Compilation Report" and "Contaminant Delineation Plan" dated Dec. '95.
April 15, 1998	James Van Nortwick	RMT	Ms. Gwen Barunas	NJDEP	Request to conduct remaining 1998 EFR events on a monthly basis.
April 28, 1998	James Van Nortwick	RMT	Ms. Gwen Barunas	NJDEP	Submittal letter for 4th Quarter 1997 Groundwater Monitoring Report, includes description of remediation activities, EFR well installation activities, and remediation performance.
July 15, 1998	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments on RMT's MW-19 and Hot Spot 1 Delineation Reports
July 28, 1998	Steve Chillson	RMT	Ms. Gwen Zervas	NJDEP	Surface water sampling results from the ditch on Air Products property north of LEC site.
September 29, 1998	Nick Clevett	RMT	Stephen Cipot	USEPA Region II	Text copy of 1st Quarter 1998 Monitoring Report

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Date	Author	Author's Employer	Recipient	Recipient's Employer	Comments
October 13, 1998	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments on 1st Quarter 1998 Quarterly Progress Report.
October 26, 1998	Alan Schmidt, Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	RMT response to 10/13/98 NJDEP letter
November 5, 1998	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	Boring logs for MW-15 cluster
November 23, 1998	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments on the 2nd Quarter 1998 and 3rd Quarter 1998 Monitoring Reports
November 23, 1998	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP accepts RMT's 10/26/98 responses to NJDEP 10/13 letter.
December 21, 1998	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP comments on Workplan to Implement Further Investigative and Remedial Action at MW-19/Hot Spot 1, Hot Spot B & C, and Hot Spot 4 produced by RMT dated Nov. '98.
March 18, 1999	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments on 4th Quarter 1998 Quarterly Monitoring Report
May 21, 1999	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	DEHP was detected at MW-11D in 1st Quarter 1999 Monitoring Report (April '99), so this well must be incorporated into the monitoring program.
July 21, 1999	Ms. Gwen Zervas	NJDEP	Nick Clevett	RMT	Email about lead delineation, well installation, Congressman visit
July 23, 1999	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP. comments on "MW-19/Hot Spot 1 Off-Site Subsurface Investigation" dated June 1999.
August 17, 1999	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments regarding 2nd Quarter 1999 Monitoring Report dated July 1999. Emails between Nick and Gwen attached.
September 30, 1999	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP approves "Workplan, Further Off-Site Groundwater Investigation at MW19/Hot Spot 1" dated August '99
April 13, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Comments on "Hot Spot B and Hot Spot C Subsurface Lead Investigation Report" dated October 1999.
April 13, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	Request that modeling of recoverable free product be submitted along with a time frame to recover free product. LEC must explore more aggressive free product removal techniques.
May 15, 2000	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	Response to NJDEP's 4/13/00 letter regarding "Hot Spot B and Hot Spot C Subsurface Lead Investigation Report" dated August 1999. Letter also justifies LEC pursuing an alternative remedy to excavation and off-site disposal.
May 15, 2000	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	RMT response to NJDEP letter date 4/13/00 regarding 4th Quarter 1999 Quarterly Monitoring Report dated Jan. 2000. Presents free product removal alternatives.
May 15, 2000	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	RMT response to NJDEP 4/13 letter regarding MW19/Hot Spot 1 Remedial Investigation report.
July 31, 2000	Nick Clevett	RMT	Cris Anderson	LEC	Telephone conference Agenda Items for Discussion
August 1, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on RMT 5/15 letter regarding MW19/Hot Spot 1
August 1, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on the Hot Spot B and Hot Spot C Subsurface Lead Investigation Report date 5/15/00
August 1, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on Free Product Volume analysis dated May 2000
August 1, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on 5/15 letter entitled Free Product Remedial Alternative Analysis
August 1, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on the Evaluation of Remediation of Groundwater by Natural Attenuation
October 13, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on the Workplan to Evaluate Additional Technologies to Enhance On-Site Free Product Recovery dated 8/15/00
November 9, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on the Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil dated Sept. 2000.
November 14, 2000	Stephen Cipot	USEPA Region II	Ms. Gwen Zervas	NJDEP	USEPA's comments to NJDEP on Workplan for Further Off-Site Groundwater Investigation at MW19/Hot Spot dated 10/26/00.
November 16, 2000	Stephen Cipot	USEPA Region II	Ms. Gwen Zervas	NJDEP	Forwarding of Work Plan for Delineation and Characterizing Elevated Lead Concentrations in Soil for Biological Technical Assistance Group review and comment. Also attached are BTAG's letters to Stephen Cipot detailing their review.
December 21, 2000	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA's comments on the Work Plan for Delineating and Characterizing Elevated Lead Concentrations in Soil dated Sept. 2000.
January 4, 2001	Nick Clevett	RMT	Stephen Cipot	USEPA Region II	Email listing 2000 EFR numbers
January 5, 2001	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and USEPA's comments on Workplan for Further Off-Site Groundwater Investigation at MW19/Hot Spot dated 10/26/00.
January 26, 2001	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	Email request to deliver 4th Quarter 2000 Monitoring Report late (past Jan 30, 2001). NJDEP reply - Comments on 3rd quarter report and approval of late submittal request for 4th quarter report.
February 13, 2001	Nick Clevett	RMT	Ms. Gwen Zervas	NJDEP	Letter response to NJDEP comments outlined in their letter dated January 5, 2001. Modification of wells locations in the MW19/Hot Spot 1 area (MW-19-9, MW-19-9D, and MW-19-10). Attached CAD drawing File No. 38681063

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March 13, 2001	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and USEPA review of RMT response letter dated 2/13/01 on MW19-Hot Spot 1 series wells MW19-9, MW19-9D and MW19-10). Wells approved for installation.
April 5, 2001	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and USEPA review of 4th Quarter 2000 Monitoring Report. MW-11(DR) request for removal from quarterly protocol denied. Must keep sampling, but ONLY for DEHP.
May 8, 2001	Ms. Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP letter requesting that agency comments regarding the Workplan to Evaluate Additional Technologies to Enhance Free Product Recovery (RMT, Oct 13, 2000) and Workplan for Delineating and Characterizing Elevated Lead Concentrations (RMT, Dec 21, 2000) be answered by May 25, 2001. Additionally, MW19/Hot Spot 1 wells approved for installation in the agencies letter dated March 13, 2001 be installed by June 1, 2001.
May 18, 2001	Jim Dexter	RMT	Gwen Zervas	NJDEP	Response to May 8, 2001 letter form NJDEP. MW19/Hot Spot 1 well installation schedule. Wells scheduled for installation on June 1, 2001. Letter also requested representative on NJDEP be on site for installations so placement is mutually acceptable.
May 25, 2001	Jim Dexter	RMT	Gwen Zervas	NJDEP	Cover letter to for the May 2001 Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil in response to the NJDEP report delivery requirement outlined in the May 8, 2001 letter form NJDEP. The cover letter specifically follows agency comments outlined in the December 21, 2000 NJDEP letter.
June 27, 2001	Nick Clevett	RMT	Gwen Zervas	NJDEP	Confirmation letter to the NJDEP that based on field conditions and conversations with the NJDEP representative in the field [George Blyskun], installation of proposed wells MW19-9 and MW19-10 was not required. Installation of the deeper well was postponed due to power line interference.
July 3, 2001	Nick Clevett	RMT	Stephen Cipot	USEPA Region II	Letter outlining a proposed location for the deep monitoring well MW19-9D.
August 23, 2001	Gwen Zervas	NJDEP	Cris Anderson	LEC	Agency comments regarding the Revised Workplan for Delineating Elevated Lead Concentrations in Soil (RMT, May 2001). Issues: supply background sampling locations within 7 calendar days of receipt of letter, Focused Feasibility Study (FFS) requirement to change ROD [include health and ecological risk eval], Report deadline of March 1, 2001.
August 23, 2001	Gwen Zervas	NJDEP	Cris Anderson	LEC	Agency comments regarding the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (RMT, May 2001). Issues: use hollow stem auger drilling methods, survey new wells, clarify use of ethane/ethene as MNA analytes, MNA analysis quarterly, Ferrous iron test in field, include turbidity, site wide water levels, discussion and agreement of preliminary MNA model inputs, use ASTM modeling standards, well placement issues, response to comments in 60 calendar days.
August 23, 2001	Gwen Zervas	NJDEP	Cris Anderson	LEC	Agency comments regarding Enhancement of Free Product Recovery (Workplan) (RMT, May 2001). Issues: dropping technologies needs formal explanation, requirements for design specs for recovery trench, NPDES permit problematic need to look at alternatives, identify trench rehabilitation criteria, identify wells that need abandoning due to trench construction, response to comments in 60 calendar days.
August 23, 2001	Nick Clevett	RMT	Cris Anderson Jim Dexter, Drew Diefendorf	LEC & RMT	Fax copies of draft agency comments regarding the three (3) workplans submitted in May 2001.
September 4, 2001	Nick Clevett	RMT	Gwen Zervas	NJDEP	Response to NJDEP letter dated Aug 23, 2001 outlining the proposed background lead sample locations. [Note: these samples were never taken as lead was reported as being created by an on-site source, no background required. This issue was only raised due to the potential that lead concentrations >600 ppm were caused by historical mining activities].
October 30, 2001	Jim Dexter & Nick Clevett	RMT	Gwen Zervas, Stephen Cipot, & Andrew Crossland	NJDEP & EPA	Technical Memorandum: Response to issues raised on the October 25, 2001 conference call with NJDEP and EPA regarding the background lead sample locations.
November 26, 2001	Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP and EPA comments regarding the Workplan to Evaluate Free Product Remedial Strategies (RMT, Nov 2001). Issues: how will lead impacted soils be identified, place soils on plastic liner, disposition of excavated soils, metals sampling in soils required, more info on low-temp thermal disorption, HASP and schedule need to be prepared.
January 11, 2002	Nick Clevett	RMT	Gwen Zervas	NJDEP	Faxed a copy of the RMT letter dated October 23, 2001 "Responses to August 23, 2001 NJDEP Letter and Addendum for the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater" including all figures and tables.
January 24, 2002	Gwen Zervas	NJDEP	Cris Anderson	LEC	NJDEP approval letter of the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater and Responses to August 23, 2001 NJDEP Letter and Addendum for the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater. MNA approach is approved.

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Date	Author	Author's Employer	Recipient	Recipient's Employer	Comments
February 11, 2002	Nick Clevett	RMT	Gwen Zervas	NJDEP	This letter summarized the January 29, 2002 conference call between RMT and NJDEP regarding the field conditions discovered during the lead and free product field investigations performed in November and December 2001 respectively. The letter outlined RMT intent to perform a " wet excavation" under the Area of Contamination rule; raised waste classification issues regarding the free product layer and excavated soils etc. (D001, F003, and F005 issues). This letter was included as an appendix in the report entitled Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002).
February 26, 2002	Gwen Zervas	NJDEP	Nick Clevett	RMT	NJDEP response to the February 11, 2002 letter. NJDEP indicated that the issues raised in the letter are currently under review by the Bureau of Resource Recovery and Technical Services. The NJDEP stated that an agency written response regarding the Feb 11, 2002 letter was not probably Feb 28, 2002 as requested by RMT, and that the report documenting the free product test pit investigation was still due by March 15, 2002. The NJDEP requested that RMT supply all relevant Weston waste characterizations info. Subsequently, RMT included the available Weston info in the report Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002) as submittal of this report was required by the department by March 2002.
April 8, 2002	Anthony Cinque	NJDEP	Cris Anderson	LEC	Agency comments regarding their review of the report Results of the MW19/Hot Spot 1 Area Well Installation and Groundwater Sampling (RMT, Oct 19, 2001). Agency requested that GEI-2S and 2I be sampled in the letter. Conversations and email (dated 4/12/02 at 9:30am) with NJDEP indicated that all wells (including the piezometers) need to be evaluated (elevation and BTEX/DEHP sampling).
May 6, 2002	Nick Clevett	RMT	Stephen Cipot	USEPA Region II	Transmittal letter sending the 6 copies on the Nature and Extent of Lead in Soils and Groundwater [Vol(s) 1 and 2] to USEPA for BTAG review for pending lead Explanation of Significant Difference (ESD).
May 7, 2002	John Scagnelli	Scarinci & Hollenbeck	Nick Clevett	RMT	A 21 page fax containing 4 letters to; 1) Susan Best (May 6, 2002) regarding the meeting scheduled for May 14, 2002 at 4pm Wharton Town Hall, 2) NJDEP Commissioner Brad Campbell (May 6, 2002) regarding the meeting scheduled for May 14, 2002 at 4pm Wharton Town Hall), 3) Wharton Mayor William Chegwidden (April 2, 2002) thanking the Mayor for the opportunity to meet with the Borough reps on March 13, 2002, and 4) James Babcock (Local developer w/CDS/DSD) (April 8, 2002) supplying info regarding the current environmental conditions and site chronology of environmental events for the first meeting of the Borough of Wharton's Special Committee to develop LEC.
May 8, 2002	Nick Clevett	RMT	Stephen Cipot	USEPA Region II	Estimated costs to implement to remedial approach outlined in the Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy. $3M to $3.5M.
May 20, 2002	Jim Dexter & Nick Clevett	RMT	Cris Anderson	LEC	Meeting Minutes form the 5/14/02 meeting at the Borough of Wharton's Town Hall. Discussions of LEC corporate strategy for end use, borough's plans for end use and summary of existing environmental conditions and proposed remedial actions.
May 20, 2002	Wally Kurzeja	RMT	William J. Chegwidden	Mayor, Borough of Wharton	Transmittal letter forwarding a CD ROM of LEC site drawings. This issue was raised at the Borough meeting on May 14, 2002 so the Mayor can forward the drawings to their engineer for use during the borough's potential site development plans.
May 31, 2002	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP comments on Quarterly Monitoring Report - 1st Quarter 2002. 1) Provide explanation as to why COCs (BTEX & DEHP) not seen in drainage ditch surface water; 2) sample at several points along drainage ditch next quarterly event; 3) Sample piezometers GEI-2S and GEI-2I (will be performed the week of June 3, 2002)
July 24, 2002	Nick Clevett	RMT	Robert Kunze	Schoor DePalma	Transmittal letter of various reports for Schoor DePalma to review so as to provide the Borough of Wharton with an independent opinion regarding the proposed remedial approach to LEC. Schoor DePalma was hired by the Borough as a third party.
July 25, 2002	Nick Clevett	RMT	Cris Anderson, Lee Larson, John Scagnelli, Jim Dexter, Laura Curtis, Drew Diefendorf and Dan Oman	LEC (CA & LL), Scarinci & Hollenbeck (JS), JD/LC/DD/DO (RMT)	Email write up and summary of faxed NJDEP comment letter later to be dated 7/26/02 regarding the reports entitled Nature and Extent of Lead in Soils and Groundwater (RMT, March 2002), and Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002). 9 pages of comments - Extensive documentation.
July 26, 2002	Anthony Cinque	NJDEP	Cris Anderson	LEC	FINAL Hard copy NJDEP & USEPA comments regarding the reports entitled Nature and Extent of Lead in Soils and Groundwater (RMT, March 2002), and Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002). 9 pages of comments - Extensive documentation.

Project Correspondence Summary
Dayco Corporation/L.E. Carpenter Co.
Borough of Wharton, New Jersey
USEPA ID. No. NJD002168748

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September 10, 2002	Robert Confer & Shi Chang	NJDEP	Bruce Venner & Anthony Cinque	NJDEP	Waste Characterization Memo sent by the NJDEP Bureau of Solid and Hazardous Waste to the NJDEP LEC Case manager (Div. Of Responsible Site Party Remediation). This intra NJDEP waste memo provides a determination as to how waste generated during the free product remediation will be characterized. Cross reference February 11, 2002 RMT waste letter to NJDEP and Section 7 of the *Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy* (RMT, March 2002)
September 27, 2002	Nick Clevett	RMT	Cris Anderson, [cc: Lee Larson, John Scagnelli, Jim Dexter, Laura Curtis, Drew Diefendorf]	LEC (CA & LL), Scarinci & Hollenbeck (JS), JD/LC/DD (RMT)	RMT response/summary of the Waste Characterization Memo sent by the NJDEP Bureau of Solid and Hazardous Waste to the NJDEP LEC Case manager (Div. Of Responsible Site Party Remediation) dated September 10, 2002. No F005 or U028 waste codes apply. Liquid free product either D001 or F003 (not both). Solid waste (free product saturated soils) characteristically hazardous or not. Need written approval regarding AOC policy application to wet excavation area.
October 1, 2002	Jim Dexter & Nick Clevett	RMT	Cris Anderson, Lee Larson, John Scagnelli, & Drew Diefendorf	LEC and RMT	September 19, 2002 Meeting Minutes
October 1, 2002	Nick Clevett, Jim Dexter & Drew Diefendorf	RMT	Anthony Cinque [cc to Gwen Zervas - NJDEP, Stephen Cipot - USEPA, Cris Anderson - LEC, Lee Larson - LEC, John Scagnelli - Scarinci & Hollenbeck]	NJDEP	DRAFT response to NJDEP comment letter dated July 26, 2002 regarding the reports entitled Nature and Extent of Lead in Soils and Groundwater (RMT, March 2002), and Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002). These draft responses included the discussions and agreements made during the September 19, 2002 meeting with NJDEP and USEPA at the USEPA Edison Laboratories complex in Edison, NJ.
October 22, 2002	Nick Clevett, Jim Dexter & Drew Diefendorf	RMT	Anthony Cinque [cc to Gwen Zervas - NJDEP, Stephen Cipot - USEPA, Cris Anderson - LEC, Lee Larson - LEC, John Scagnelli - Scarinci & Hollenbeck, and Bob Kunze - Schoor DePalma)	NJDEP	FINAL response to NJDEP comment letter dated July 26, 2002 regarding the reports entitled Nature and Extent of Lead in Soils and Groundwater (RMT, March 2002), and Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy (RMT, March 2002). These draft responses included the discussions and agreements made during the September 19, 2002 meeting with NJDEP and USEPA at the USEPA Edison Laboratories complex in Edison, NJ.
October 22, 2002	Nick Clevett	RMT	Bob Kunze	Schoor DePalma	Transmittal letter of FINAL response to NJDEP comment letter dated July 26, 2002, and the NJDEP letter dated July 26, 2002 to Borough of Wharton consultant for comment and review prior to the Oct 28, 2002 meeting at 4:30pm EST at Wharton City Hall to provide a project update to the town. Transmittal letter copied to John Scagnelli (PolyOne Outside Council) at his request to provide proof to the Mayor of Wharton that his consultant is in the loop.
November 4, 2002	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP comments on the Quarterly Monitoring Report - 2nd Quarter 2002. (RMT August 2002). 1) Surface water sampling in the Drainage ditch must be performed via grab samples not peristaltic pump and sampling order must progress form downstream to upstream. Also requested the use of vapor phase or passive diffusion bag samplers to sample groundwater discharge into the drainage ditch. This approach will be evaluated and implemented beginning 1Q03 if feasible.
January 7, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP comments on the Quarterly Monitoring Report - 3rd Quarter 2002. (RMT October 2002). 1) Hazsite electronic disk must have been damaged in the mail (will send second disk) and 2) Surface water sampling in the Drainage ditch must be performed via grab samples not peristaltic pump and sampling order must progress form downstream to upstream. This was performed in 4Q02.
January 22, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP comments on RMT's responses dated October 22, 2002 to the NJDEP lead and free product report review letter dated July 26, 2002. These comments were prepared after the Sept 2002 meeting at USEPA in Edison NJ. Actions as follows: 1) Remedial Schedule to NJDEP/EPA within 14 calendar days (2/5/03); 2) Lead Soil FFS to NJDEP/USEPA by 2/28/03; 3) Evaluate 600ppm lead level as protective given new end use in risk section of FFS; 4) post excavation samples required during RD/RA; 5) evaluate free product/drainage ditch issue.

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February 3, 2003	Nick Clevett	RMT	Anthony Cinque [cc to Stephen Cipot, Cris Anderson, John Scagnelli, Jim Dexter, Wally Kurzeja and Drew Diefendorf]	LEC (CA), Scarinci & Hollenbeck (JS), SC (USEPA) JD/WK/DD (RMT)	LEC Remedial Project Schedule [GANT Chart] outlining the proposed remedial schedule from the 2/28/03 submittal of the Lead Soil FFS to a construction mobilization date to initiate source removal actions 8/31/04. Schedule prepared as required by the NJDEP letter dated Jan 22, 2003.
February 27, 2003	John Scagnelli	Scarinci & Hollenbeck	Nick Clevett	RMT	Client alert that NJDEP has published new Storm water Management Rules N.J.A.C. 7:8 et seq.
March 4, 2003	Nick Clevett	RMT	Richard Hahn	LEC	CC: of the remedial project schedule at the request of Cris Anderson
March 6, 2003	Nick Clevett	RMT	Anthony Cinque [cc to Stephen Cipot, Cris Anderson, Jim Dexter, and Drew Diefendorf]	NJDEP [cc: USEPA, LEC, RMT]	RMT written confirmation of receipt of Lead Soil FFS and written notice regarding the inability to perform Jan and Feb 2003 EFR events due to excessive snow cover. 3 EFR events were proposed for March 2003.
March 26, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP and USEPA review of 4Q02 Monitoring Report. 1) Continue to watch DEHP concentrations at MW-11DR, 2) Explain concentration DEHP concentration fluctuations at MW-22R, and 3) Revisit the potential use of PDB samplers to sample groundwater prior to discharge into drainage ditch. All 3 comments will be addressed in the 1Q03 monitoring report.
April 15, 2003	John Scagnelli	Scarinci & Hollenbeck	Richard Hahn	LEC	Discussed 1) PolyOne and Borough of Wharton Letter of Intent (LOI), 2) Borough's Developer information needs (operational history and professional survey), 3) Environmental cleanup, and 4) NJDEP oversight costs.
July 2, 2003	Anthony Cinque	NJDEP	Nick Clevett, Jim Dexter, Cris Anderson, John Scagnelli. Richard Hahn, Drew Diefendorf, Dan Oman, Wally Kurzeja	RMT, LEC, Scarinci & Hollenbeck,	Outlined draft comments regarding the report entitled *Focused Feasibility Study Lead-Impacted Soil Remediation* (RMT, Feb 2003). USEPA comments are extensive.
July 3, 2003	Anthony Cinque	NJDEP	Nick Clevett, Jim Dexter, Cris Anderson, John Scagnelli. Richard Hahn, Drew Diefendorf, Dan Oman, Wally Kurzeja	RMT, LEC, Scarinci & Hollenbeck,	Outlined final comments regarding the report entitled *Focused Feasibility Study Lead-Impacted Soil Remediation* (RMT, Feb 2003). USEPA comments are extensive. No changes from draft.
July 8, 2003	Jim Dexter & Nick Clevett	RMT	Nick Clevett, Drew Diefendorf, Dan Oman, Wally Kurzeja, Jennifer Overvoorde, Eric Swanson, John Scagnelli, Cris Anderson, Richard Hahn	RMT, LEC, Scarinci & Hollenbeck,	Fax cover sheet briefly summarizing USEPA comments to *Focused Feasibility Study Lead-Impacted Soil Remediation* (RMT, Feb 2003) and general recommendations for steps forward.
August 6, 2003	Anthony Cinque	NJDEP	Nick Clevett	RMT	EMAILED NJDEP comments based on the review of the Quarterly Monitoring Report - 1Q03. 1) Free product recoverable volume clarification and 2) request for drainage ditch sampling for BTEX w/PDB sampling (no DEHP).
September 30, 2003	Nick Clevett, Jim Dexter, Drew Diefendorf, & Dan Oman	RMT	Cris Anderson and Attendees of the 10/7/03 Meeting	LEC, NJDEP, USEPA	October 7, 2003 Meeting Agenda and Path Forward Discussion Document regarding the Lead Soil FFS Comments **[Meeting attendance sheet attached]**
October 9, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP comments on 2Q03 monitoring report. NJDEP recommends PDB sampling in the sediments of BOTH the Drainage Channel and the Rockaway River. PDB Sampling in Rockaway River is a new request.
December 9, 2003	Nick Clevett	RMT	Anthony Cinque	NJDEP	Lead Soil FFS and regulatory comment regarding the Lead Soil FFS withdrawal letter and revised remedial schedule (Version 2)

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December 16, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP and USEPA comments on Quarterly Monitoring Report - 3rd Quarter 2003. (RMT Oct 30, 2003). Regulators requesting PDB sampling in drainage channel and/or Rockaway River and a drawing showing where the samplers are proposed for installation
December 23, 2003	Anthony Cinque	NJDEP	Cris Anderson	LEC	NJDEP and USEPA confirmation and approval of the Lead Soil FFS and Regulatory Comments regarding the Lead Soil FFS. Regulators did not agree with the revised remedial schedule (Version 2). NJDEP and USEPA wants RAWP preparation within 60 days of receipt of the letter and initiation of field activities NLT summer 2004.
January 8, 2004	Nick Clevett	RMT	Anthony Cinque	NJDEP	DRAFT Response to NJDEP letter dated 12/23/03. Propose RAWP preparation in 60 days but schedule dependent on 1) adherence of regulators to review times, 2) Stage 1B Archeological Survey and Wetland work will be addendums, 3) minimal regulatory comments on RAWP and subsequent addendums . Clarified that lead soils and LNAPL remedial actions will be concurrent. Client approval of draft is attached.
January 15, 2004	Stephen Cipot	USEPA Region II	Anthony Cinque	NJDEP	USEPA comments on the 3Q03 monitoring report
February 10, 2004	Anthony Cinque	NJDEP	Cris Anderson	LEC	Approval of the RAWP submittal extension to April 28, 2004
February 11, 2004	Anthony Cinque	NJDEP	Nick Clevett	RMT	Emailed NJDEP comments on the Pilot Excavation Workplan
February 12, 2004	John Scagnelli	Scarinci & Hollenbeck	Jon Rheinhardt	Borough of Wharton	Notice that the Pilot Excavation is going to take place and a copy of the Workplan
July 24, 2004	Anthony Cinque	NJDEP	Cris Anderson	LEC	RAWP NJDEP and USEPA comments.
September 14, 2004	Nick Clevett	RMT	Anthony Cinque	NJDEP	RMT response to regulatory RAWP comments
October 20, 2004	Anthony Cinque	NJDEP	Cris Anderson	LEC	Regulatory review of RMT response to RAWP comment document 9/14/04
October 29, 2004	Joe McEvoy PE	Morris County Soil Conservation District	Dan Oman	RMT	MCSCD coomments on SECP
November 5, 2004	Nick Clevett	RMT	Anthony Cinque	NJDEP	Response to 10/20/04 regulatory comments. Conference call for discussion and approval.
December 21, 2004	Anthony Cinque	NJDEP	Cris Anderson	LEC	Regulatory approval of the RAWP
February 21, 2005	Nick Clevett	RMT	Susan Michniewski	NJDEP	Response to Deficiency Letter for Application for Stream Encroachment Permit and freshwater Wetlands Statewide General Permit No. 4.
February 25, 2005	Mark A. Godfrey	NJDEP	Nick Clevett	RMT	Authorization for Freshwater Wetlands Statewide General Permit No. 4
May 18, 2005	Nick Clevett	RMT	Susan Michniewski	NJDEP	Freshwater Wetlands Statewide General Permit No. 4 File No. 1439-04-0001.1 (FWW 040001) Notice of Final Grade Site Meeting.
June 30, 2005	Nick Clevett	RMT	Jill Aspinwall	NJDEP	Wetland Restoration Project File No. 1439-04-0001.1 (FWW 040001) June 24, 2005 Post Final Grade Construction Meeting. Topsoil, Analytical Data sheet attached.
July 20, 2005	Anthony Cinque	NJDEP	Christopher Anderson	LEC	Response to Regulatory Review of the 1Q05 Mon Rpt [profile sampling] and 3Q04 Mon Rpt [ditch and river sampling]
October 5, 2006	Anthony Cinque	NJDEP	Cris Anderson	LEC	General comments on the review of the Second Quarter Monitoring Report Dated July 27, 2005 [ditch sampling and more info requested on MW19-12].
December 22, 2005	Anthony Cinque	NJDEP	Cris Anderson	LEC	General Comments on the review of the 3rd Quarter Monitoring Report Dated October 19, 2005.
January 4, 2006	Virginia Kop'Kash	NJDEP LURP	Nick Clevett	RMT	Review of the 2005 Compensatory Mitigation Monitoring Report and Wetland and Stream Encroachment Permit Application [250 bare root trees]

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February 22, 2006	Scott Pawlukiewicz	RMT	NJ Dept. of Treasury	NJ Dept. of Treasury	2005 Biennial Hazardous Waste Report- Site Identification, Form GM Waste Generation and Management, and Fee Verification Form. RCRA Subtitle C Site Identification Form, 2005 Niennial Hazardous Waste Report Fee verification Form, & Check receipt for Treasury, state of New Jersey (405.00) Attached.
February 22, 2006	Anthony Cinque	NJDEP	Cris Anderson	LEC	General Comments of the Post Remedial Monitoring Plan Dated October 14, 2005.
June 14, 2006	Anthony Cinque	NJDEP	Cris Anderson	LEC	General Comments of the review of the Remedial Action Report (RAR)
August 25, 2006	Nick Clevett	RMT	Glenn Savary	NJDEP	Response to Remedial Action Report (RAR) dated Nov 18, 2005 regulatory comments outlined in the NJDEP Letter dated June 14, 2006 (attached). Sept Grace Period Rules kick in.
January 12, 2007	Glann Savary	NJDEP	Cris Anderson	LEC	Remedial Action Progress Report [4Q05] received by NJDEP on February 10, 2006 approved
January 23, 2007	Nick Clevett	RMT	Glenn Savary	NJDEP	Email Regarding RMT Submitting the Remedial Action Progress Report on the 30th day of the month. Copy of the ACO Attached.
February 5, 2007	Virginia Kop'Kash	NJDEP LURP	Kelly Rice	JFNew	Review of 2006 Compensatory Mitigation Monitoring Report.
March 30, 2007	Glenn Savary	NJDEP	Cris Anderson	LEC	NJDEP review and approval of the 1Q06 Remedial Progress Report including comment response to Feb 22, 2006 PRMP comment letter contain within the 1Q06 RAPR.
April 9, 2007	Nick Clevett	RMT	Virginia Kop'Kash	NJDEP LURP	Response to NJDEP LURP comment letter on the 2006 Compensatory Mitigation Monitoring Report.
June 20, 2007	Glenn Savary	NJDEP	Cris Anderson	LEC	NJDEP response following review of May 9, 2006 Soil Gas Investigation Report in the MW19/Hot Spo1 Area and response to comments on post remedial monitoring plan specific to to the MW19/HS 1 area. NJDEP and USEPA requesting remediation and preparation of a RASR.
June 26, 2007	Nick Clevett	RMT	Ernie Schaub & Cris Anderson	LEC	EMAIL regarding NJDEP June 20, 2007 Soil Gas Investigation Report and the RASR prep w/potential remediation
July 17, 2007	Nick Clevett	RMT	Glenn Savary	NJDEP	Formal request to extend MW19/HS 1 RASR submittal by 45-days [ref liine 173]
July 19, 2007	Nick Clevett	RMT	Michelle Granger	USEPA Region II	Response the RAR and RAWP documents to prepare the ROD ESD
July 27, 2007	Glenn Savary	NJDEP	Cris Anderson	LEC	Email: NJDEP approval letter of the MW19/Hot Spot 1 RASR extension request [Ref. Row 175]. Hard copy received Aug 7, 2007
September 14, 2007	Glenn Savary	NJDEP	Cris Anderson	LEC	Formal approval of the Remedial Action Report for Source Reduction dated November 2005 and RMT's August 25, 2006 response to NJDEP comments on RAR dated June 14, 2006
October 24, 2007	Michelle Granger	USEPA Region II	Glenn Savary	NJDEP	Site soils [east of rails to trails] and free product Explantation of Significant Difference [ESD] following implementation of the Source Reduction
November 16, 2007	Virginia Kop'Kash	NJDEP LURP	Nick Clevett	RMT	GP-14 Permit 1439-04-0001.1 (FWW 060001) to install the 5 Wharton Enterprise mounded monitoring wells in a wetland area
February 20, 2008	Peter DeMeo	NJDEP LURP	Cris Anderson	LEC	Stream Encroachment Modification-In-Detail 1439-04-0001.2 FHA070001 [Stream Encroachment Permit # 1439-04-0001.1 FHA 050001] to install the 5 Wharton Enterprise mounded monitoring wells in the 100-yr flood plain
March 18, 2008	Nick Clevett	RMT	Robert Papson	Bureau of Freshwater Fisheries	Waiver request to install the 5 Wharton Enterprise mounded wetland monitoring wells during the trout protection period between March 15 and June 15 [GP-14 Special Condition No. 1]. Wells proposed for installation during the week of April 7, 2007. Emailed waiver approval attached.
April 18, 2008	George Pavlou	USEPA Region II, Director, ERRD	Irene Kropp	NJDEP, Assistant Commissnr for SRP	Letter discussing the transfer of lead enforcement agency for the LE Carpenter Superfund Site in Wharton, NJ from NJDEP to USEPA Region 2.
June 19, 2008	Glenn Savary	NJDEP	Cris Anderson	LEC	NOD letter acknowledging receipt of the 2Q06, 3Q06, 4Q06, 1Q07, 2Q07, 3Q07, 4Q07 and 1Q08 RAPRs. Deficiencies 1) Rockaway River surface water classification, 2) impacted groundwater discharges to the drainage ditch and river. LEC is required to prepare a Remedial Investigation Workplan (RIW) within 60 days following receipt of the letter. On or before Aug 24, 2008
July 30, 2008	Frances Zizila	USEPA Region II	Richard Haan	LEC	Letter advising LEC of USEPA intentions to discuss MNA evaluation of site-wide groundwater in addition to a focused RI/FS of the MW19/HS1 area. Draft ACO and SOW also attached.

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September 3, 2008	Richard Haan	LEC	Frances Zizila	USEPA Region II	Response to July 30, 2008 letter, requesting reconsideration of need for AOC and/or a focused RI/FS in the MW-19/HS1 area.
October 16, 2008	Glenn Savary	NJDEP	Cris Anderson/Ernie Schaub	LEC	NOD letter following review of the MW19/HS 1 RASR [RMT Sept 6, 2007] requiring further lateral and vertical [vados and saturated zone soils] delineation of MW19/HS1 source materials following Demo of Bldg. 9. Time frame RIW submittal 30-days. On or before Nov. 19, 2008.
October 30, 2008	Frances Zizila	USEPA Region II	Richard Haan	LEC	USEPA response regarding their review of the RASR and support of NJDEP's Oct. 16, 2008 NOD. Recommend LEC reconsider negotiating w/ USEPA to perform work outlined in draft ACO and SOW. Response required within 7 days of receipt of letter. On or before nov. 11, 2008.
November 11, 2008	Richard Haan	LEC	Frances Zizila	USEPA Region II	LE Carpenter response to USEPA October 30, 2008 letter.
January 5, 2009	Nick Clevett	RMT	Patricia Simmons Pierre	USEPA Region II	MW19/Hot Spot 1 Remedial Investigation and Remedial Action Letter of Intent (LOI). Outlined streamlined approach to remediationg MW19/HS1 area by combining Nov '08 RIW and Sept '07 RASR.
January 22, 2009	Patricia Simmons Pierre	USEPA Region II	Ernie Schaub & Nicholas Clevett	LEC & RMT	Email with attached comments addressing the MW-30 Area RIW.
January 30, 2009	Glenn Savary	NJDEP	Ernie Schaub & Nicholas Clevett	LEC & RMT	Email with attached comments addressing the MW-30 Area RIW.
March 24, 2009	Nick Clevett	RMT	Patricia Simmons Pierre	USEPA Region II	Email with both the edited pdf version of the draft LEC SOW in red line strike out, and a clean Word version incorporating the edits. Main SOW edits focus around separation of the RAW, RA and RAR phases for the MW-30 and MW-19/HS1 areas, and based on conversations and emails, EPA's waiver of the RD requirements for the MW19/HS1 area. RAW preparation for the MW19/HS1 area will proceed following receipt of comments on the RASR and RIW.
April 10, 2009	Richard Haan	LEC	Frances Zizila	USEPA Region II	Letter to facilitate discussions re: the UAO for the April 16, 2009 conference call, outlining LEC's request for input on the UAO in addition to issues LEC has raised in the recent past that USEPA has yet to address.
May 18, 2009	Nick Clevett	RMT	Richard Hahn, Dena Kobasic, Ernie Schaub	LEC	Emails back and forth between parties regarding revisions to the UAO's "Findings or Fact" section to be sent/conveyed to the USEPA.
June 22, 2009	Ronald Corcory	NJDEP, Assnt Dirctr, Enfrcmnt & Assgnmnt	Cris Anderson	LEC	Letter and subsequent electronic communications addressing LEC's concerns regarding duplicative reporting requirements from the two agencies. Letter outlines NJDEP's view that all required documents be submitted to NJDEP with copies being sent to the USEPA until the UAO is issued.
July 6, 2009	Patricia Simmons Pierre	USEPA Region II	Ernie Schaub	LEC	Electronic communication with Final Dayco UAO and SOW attached.
August 3, 2009	Frances Zizila	USEPA Region II	Richard Hahn	LEC	Electronic communication outlining the effeict date of the UAO (August 6, 2009) and the revised timeframe for recording the ammended UAO with Morris County.
August 13, 2009	Richard Haan	LEC	Patricia Simmons Pierre, Frances Zizila	USEPA Region II	Letter and associated electronic communications notifying USEPA of LEC's intent to comply with the terms of the UAO.
August 24, 2009	Patricia Simmons Pierre	USEPA Region II	Glenn Savary	NJDEP	Electronic communications confirming that EPA is working with LEC/RMT to develop a Community Involvement Plan (CIP) for the site, which will include an EPA formatted Fact Sheet. Fact sheet will be submitted two weeks prior to field work - not the Sept. 2, 2009 deadline stipulated in the NJDEP guidance.
August 26, 2009	Nick Clevett	RMT	Glenn Savary	NJDEP	Sensitive Population and Resource Checklist, in accordance with NJDEP Public Outreach and Notification Guidance
September 9, 2009	Nick Clevett	RMT	Patricia Simmons Pierre	USEPA Region II	Dayco/LEC Monthly Progress Report No. 1
September 14, 2009	Nick Clevett	RMT	Glenn Savary	NJDEP	Notification of Public Sign Postings, in accordance with NJDEP Public Outreach & Notification Guidance
October 5, 2009	Patricia Simmons Pierre	USEPA Region II	Nick Clevett	RMT	Approval of MW19HS1 area monitoring wells to facilitate demolition of Building 9
October 5, 2009	Patricia Simmons Pierre	USEPA Region II	Nick Clevett	RMT	Approval of Remedial Design Report Addenda No. 1 & 2, dated Aug. 2008 and Nov. 2008 respectively

Project Report Summary
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Date	Report Title	Author	Contents
June-85	**Administrative Consent Order (ACO)**	NJDEP	Requiring LE. Carpenter to go through the Remedial Investigation (RI)/Feasibility Study (FS) process.
June-90	**Report of Revised Remedial Investigation Findings Vol. 1**	GeoEngineering and Roy F. Weston	Site history; Remedial investigation (soil, groundwater, air, hydrogeology); sampling results from remedial investigation; Assessment of impact of contaminants on human health and environment; conclusions, additional sampling in certain areas is recommended.
November-90	**Supplemental Remedial Investigation L.E.Carpenter facility Vol. 1**	Weston Services	Site description, remediation activities, findings of Remedial Investigation; Supplemental sampling results and conclusions for different areas (starch drying beds, sludge impoundment area, drainage ditch and Rockaway River, background soil, abandoned sewer line) are presented.
September-91	**Final Technical Report for Tank Removal Operations**	Weston Services	Photodocumentation and summaries for events leading to completion of tank removal work at the site.
January-92	**Baseline Risk Assessment**	Roy F. Weston	Identification of chemicals of potential concern; human health evaluation exposure assessment; toxicity assessment; risk characterization; ecological risk assessment
February-92	**Progress Report 4Q91**	Roy F. Weston	Groundwater levels measured and samples taken. MW-22, 23, and 24 were installed on neighboring properties. Enhanced Immiscible Product Recovery System became operational this quarter.
June-92	**Bioremediation and Soil Flushing Treatability Study Report L.E. Carpenter and Co.**	IT Corporation	Remedial technology assessment (bioremediation and soil flushing); Treatability study methods, sampling, data, results and discussion; Biological site characterization; Biotreatability study results; Soil flushing data analysis and interpretation, effectiveness.
September-92	**Final Supplemental Remedial Investigation Addendum for L.E. Carpenter and Company**	Roy F. Weston	Description of site characterization activities; Physical characteristics of site (geology and hydrogeology); Nature and extent of contamination (soil, groundwater, sampling results, migration); Conclusions present an understanding of extent of contamination.
October-93	**L.E. Carpenter and Co. Final Feasibility Study Report**	Roy F. Weston	Site description, history, conceptual site model; ARARs requirements; Identification and screening of technologies and disposal options; Remediation technologies for groundwater; Analysis of remedial alternatives (institutional controls, groundwater treatment, groundwater treatment with reinfiltration, etc.) Groundwater treatment and groundwater treatment with Infiltration are recommended.
April-94	**Superfund Record of Decision (ROD)**	NJDEP	Outlines remedy for site selected by NJDEP
May-94	**Progress Report 1Q94**	Roy F. Weston	Groundwater sampling results for BTEX; Product recovery system was expanded to include more skimmer units. BTEX concentrations have decreased since last quarter.
October-94	**Workplan for Phase I ROD Implementation**	Roy F. Weston	Remedial Investigation Report summary; Phase I Hot Spot Remedial Action Plan - proposed activities for Inorganic Hot Spots, DEHP Organic Hot Spots, Disposal Area and PCB area; Groundwater remedial design acquisition and well field upgrade - aquifer pumping tests.
April-95	**Quarterly Progress Report Vol.(s) 1 and 2** ***[Period between Nov 1994 and Feb 1995. Represents 4th Quarter 1994 and 1st Quarter 1995]***	Roy F. Weston	Soil sampling showed further delineation of lead contamination is needed. Weston and NJDEP are considering the feasibility of preparing an Explanation of Significant Difference (ESD) for the ROD. Lead contamination is not indicative of "hot spots" and may be from historic fill.
July-95	**Progress Report 2Q95**	Roy F. Weston	Groundwater monitoring network has been revised. Groundwater flow in the deep aquifer is inconsistent throughout quarterly events.
October-95	**Progress Report 3Q95**	Roy F. Weston	Groundwater sampling, water levels, and product thickness measured. Product footprint was consistent with previous two quarters. Only xylenes at MW22 were in excess of criteria.
October-95	**Silk Mill Property UST Closure documents**	Roy F. Weston	Information on former UST includes NJDEP's closure approval, sections of the Tank Closure Plan, site map and analytical data package. No further action letter from NJDEP is on cover.
December-95	**Letter - Lead in Soils Data Compilation**	Roy F. Weston	Historical site use; summary of existing lead data from RI and remedial action; outline of proposed lead delineation plan for Hot Spots B and C. Weston requests an alternative cleanup standard for lead based on this report.
January-96	**Progress Report 4Q95**	Roy F. Weston	Groundwater sampling results; water elevations generally increased while product thickness decreased at most sampling locations; xylenes and DEHP were detected at concentrations above criteria.
April-96	**Progress Report 1Q96**	Roy F. Weston	Groundwater levels generally increased due to precipitation. Apparent product thickness decreased in most of the wells, the product footprint is consistent with last year's events. Xylenes were detected above criteria at MW-4 and MW-15S where they were not detected throughout 1995.
August-96	**Progress Report Vol. 1-2 2Q96**	Roy F. Weston	Soil and groundwater investigation procedures; Conclusions: Hot Spots B & C - lead distribution in soil is random, engineering controls will suffice; Hot Spot 1 - Elevated DEHP levels found at or below groundwater level, no further remedial activities recommended. Hot Spot 4 - recommended that 32 yds. soil be removed. MW19 soil - no action required. MW-19 groundwater - Weston proposed installing 3 monitoring wells. Product recovery has been effective.
October-96	**Progress Report 3Q96**	Roy F. Weston	Groundwater flow is similar to previous events, except for a mound in the southeast portion of the site. Product was found at 12 monitoring point, and no trend in thickness was discernible. MW-22 continues to have xylenes concentration above ROD criteria.
October-96	**Aquifer Testing Summary Report**	Roy F. Weston	Objectives, scope of work, site geology and hydrogeology; Aquifer testing methodology; Aquifer testing results; Conclusions - discharge rates of recovery wells in shallow aquifer zone would exceed the volume of water that could be injected into the zone.
November-96	**Remedial Action Planning Report**	Roy F. Weston	Report contains Weston's revised remedial action recommendations, since groundwater extraction and reinfiltration were found to be infeasible. Different product recovery/groundwater remedial technologies are evaluated, and Weston recommends a more aggressive program of free product recovery and treatment by improving the existing skimmer and bailing system, and using air sparging/soil vapor extraction and high vacuum extraction to middle of plume. Also obtain a POTW permit for off-site discharge, and conduct a natural attenuation monitoring program. Estimated costs and schedule are included.
February-97	**Remedial Action Plan - Phase I Free Product Recovery**	RMT	Site background is provided. Description of the proposed free product recovery system includes installing a recovery well network, and enhanced-fluid recovery. O & M plan is provided.
March-97	**Progress Report 4Q96**	Roy F. Weston	Groundwater levels generally increased since last quarter. Product was found in 18 locations with no trend in product thickness compared with Third Quarter. Xylenes were detected above ROD criteria at MW-22.

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June-97	**Progress Report 1Q97**	Roy F. Weston	Groundwater elevations generally decreased since last quarter. Product was found in 15 monitoring points, and there was no trend in product thickness. MW-22 was not sampled but xylene concentrations in this well have decreased over time.
September-97	**Progress Report 2Q97**	Roy F. Weston	A number of wells were abandoned on July 23 and 24, and some were replaced. Since last quarter, groundwater elevations have generally decreased. Benzene, xylenes and DEHP were detected in the replacement MW-22 and other wells.
November-97	**Progress Report 3Q97**	Roy F. Weston	Since 2nd Quarter, groundwater elevations have increased. Starting fourth quarter, RMT will perform sampling. Product was found in 15 locations, with no apparent trend in thickness. Benzene was above criteria in MW-14I, xylene exceeded relative criteria at MW-14I, MW-25R and MW-22R.
January-98	**Progress Report 4Q97**	Roy F. Weston	Product recovery system was out of service for this quarter. Groundwater levels generally increased. No trend in product thickness was observed. Benzene in MW-14I, xylenes in MW-14I, MW-25R, and MW-22R exceeded certain criteria.
June-98	**MW-19 and Hot Spot 1 Delineation Reports**	RMT	This report addresses NJDEP concerns regarding high BTEX concentrations in the MW19/Hot Spot 1 area. The scope of work includes installation and sampling of MW-19-1 through MW-19-5, and sampling of existing monitoring wells.
July-98	**Quarterly Monitoring Report 1Q98**	RMT	Presents results of EFR and groundwater monitoring. Mw-19-1 through MW-19-5 were installed and sampled to determine groundwater impact in the MW19/Hot Spot 1 area. MW-11I and MW-11D were replaced.
September-98	**Quarterly Monitoring Report 2Q98**	RMT	Presents results of EFR and groundwater monitoring activities. Surface water sampling of drainage ditch in accordance with 1/28/98 NJDEP letter was conducted.
October-98	**Quarterly Monitoring Report 4Q98**	RMT	Presents results of EFR and groundwater monitoring activities. The interaction of surrounding surface water bodies with shallow groundwater was indeterminable since the staff gauges were missing. They will be replaced next quarter.
November-98	**Workplan to Implement Further Investigative and Remedial Action at MW19/Hot Spot 1; Hot Spot B and C; and Hot Spot 4**	RMT	Workplan addresses NJDEP requirements outlined in 1/20/98 and 7/15/98 letters. Site background is provided and proposed scopes of work for the three areas of concern. For MW19/Hot Spot 1, monitoring well installation and sampling is proposed. For Hot Spots B and C, additional subsurface investigation to delineate lead contamination is proposed. For Hot Spot 4, excavation of contaminated soil is recommended.
January-99	**Quarterly Monitoring Report 4Q98**	RMT	Presents results of EFR and groundwater monitoring. Six new staff gauges were installed and surveyed during this quarter.
April-99	**Quarterly Monitoring Report 1Q99**	RMT	Presents EFR and groundwater monitoring results.
June-99	**MW-19/Hot Spot 1 Off-Site Subsurface Investigation**	RMT	A history of investigation in this area is provided. This report addresses NJDEP's concern about the extent of BTEX and DEHP impact to groundwater in the MW-19 area. Five off-site locations were sampled to establish a clean zone.
July-99	**Quarterly Monitoring Report 2Q99**	RMT	Presents EFR and groundwater monitoring results.
August-99	**Workplan - Further Off-Site Groundwater Investigation at MW19/Hot Spot 1**	RMT	Workplan addresses NJDEP requirements outlined in 7/23/99 letter. Workplan outlines the installation, development and sampling of 3 permanent off-site groundwater monitoring wells downgradient from the MW19/Hot Spot 1 area. A structural evaluation of downgradient homes north of Ross Street will be performed.
August-99	**Hot Spot B and Hot Spot C Subsurface Lead Investigation**	RMT	Soil sampling methods and results presented and extent of contamination defined. Three areas of soil exceed lead 600 mg/kg cleanup objective. Soil capping seems to be a reasonable option.
October-99	**Quarterly Monitoring Report 3Q99**	RMT	Results of EFT and groundwater monitoring activities are presented. RMT initiated free product modeling.
January-00	**Quarterly Monitoring Report 4Q99**	RMT	Fourth quarter EFR and groundwater monitoring results are presented. Three monitoring wells were installed and sampled downgradient of the MW19/Hot Spot 1 area. A free product volume model was completed.
March-00	**MW-19/Hot Spot 1 Area Remedial Investigation Report**	RMT	The scope of work includes installation, development, and sampling of 3 permanent downgradient monitoring wells (MW19-6, MW19-7, and MW19-8) to determine a clean zone for BTEX and DEHP. It is concluded that previous sampling events have established a clean zone for BTEX and DEHP, so further investigation in this area is not needed.
April-00	**Quarterly Monitoring Report 1Q00**	RMT	First quarter results of EFR and groundwater monitoring activities are presented. A Remedial Investigation Report regarding MW19/Hot Spot 1 was submitted.
May-00	**Evaluation of Remediation of Groundwater by Natural Attenuation**	RMT	Initial baseline evaluation of the ability of impacted groundwater existing at the LEC site to naturally degrade. Initial 2D BioScreen Model
May-00	**Free Product Volume Analysis**	RMT	Site hydrogeologic conditions and previous analysis are described. Volume of free product was estimated using and API model to be 44,000 gallons. Recoverable free product was between 8,800 and 13,000 gallons. An alternative model found recoverable free product to be 8,000 gallons.
July-00	**Quarterly Monitoring Report 2Q00**	RMT	Presents results of EFR and groundwater monitoring activities.
August-00	**Workplan to Evaluate Additional Technologies to Enhance On-Site Free Product Recovery**	RMT	This report was prepared in response to NJDEP 8/1/00 letter's request that additional technologies be evaluated to expedite free product removal. Report describes the technologies that will be evaluated (e.g., In-site chemical oxidation using Fenton's chemistry, multiple phase extraction with well points, etc.)
September-00	**Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil**	RMT	This workplan addresses NJDEP letters from 4/13 and 8/1. The goals of the workplan are to determine possible sources for the elevated lead, finish horizontal and vertical delineation of elevated lead concentrations in soil, assess risk associated with lead in soil, and evaluate alternative remedial options.
October-00	**Quarterly Monitoring Report 3Q00**	RMT	Presents EFR and groundwater monitoring results.
October-00	**MW19/Hot Spot 1 Well Installation Workplan**	RMT	Background on this area is provided. Scope of work includes the installation of 3 groundwater monitoring wells to show that contaminants are not migrating north of or along the sewer line.
January-01	**Quarterly Monitoring Report 4Q00**	RMT	Presents results of EFR and groundwater monitoring activities.
April-01	**Quarterly Monitoring Report 1Q01**	RMT	Presents results of EFR and groundwater monitoring activities.

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May-01	**Enhancement of Free Product Recovery (Workplan)**	RMT	Respond to NJDEP comments outlined in the letter dated May 8, 2001. Outlined a preliminary conceptual design to install a free product recovery trench
May-01	**Revised Workplan for Delineating and Characterizing Elevated Lead Concentrations in Soil**	RMT	Workplan provided in response to agency comments dated December 21, 2000 regarding the September 2000 lead delineation workplan.
May-01	**Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater**	RMT	Workplan provided in response to agency comments dated June 2000 regarding the May 2000 RNA workplan. Included a new project Quality Assurance Project Plan (QAPP).
July-01	**Quarterly Monitoring Report 2Q01**	RMT	Presents results of EFR and groundwater monitoring activities.
October-01	**Results of the MW19/Hot Spot 1 Area Well Installation and Groundwater Sampling**	RMT	Outlines the installation activities for MW19-9D (@ 35 bgs in shallow system). Installation of this well was required based on NJDEP letters dated April 13 and August 1, 2000 and conversations with the NJDEP and EPA on June 20, 2001 as documented in the RMT letter dated June 27, 2001. Well specifications were in accordance with RMTs Oct 2000 workplan and the RMT letter dated Feb 13, 2001. Includes a full round of well sampling.
October-01	**Responses to August 23, 2001 NJDEP Letter and Addendum for the Workplan for Supplemental Investigation of Natural Attenuation of Dissolved Constituents in Groundwater (May 2001)**	RMT	As described. Addendum to the May 2001 workplan and responses to agency comments. Issues were drilling techniques, professional survey of wells, sample analysis, future MNA modeling, well installations and QAPP table modifications.
October-01	**Quarterly Monitoring Report 3Q01**	RMT	Presents results of EFR and groundwater monitoring activities.
November-01	**Workplan to Evaluate Free Product Remedial Strategies**	RMT	Workplan proposed the installation of three test pits in areas where free product was thickest to determine the nature and extent of free product, and gather data to implement a more effective recovery methodology. The workplan included a technology evaluation decision analysis and an identification and prioritization of data needs.
November-01	**Amendment to Workplan to Evaluate Free Product Remedial Strategies**	RMT	Response to agency comments regarding the previous workplan (Nov 2001) dated Nov 20, 2001 and the conference call between NJDEP and RMT on Nov 20, 2001. Requested more details regarding low temperature thermal desorption, HASP and schedule.
January-02	**Quarterly Monitoring Report 4Q01**	RMT	Presents results of EFR and groundwater monitoring activities.
March-02	**Findings and Recommendations Regarding a Conceptual Free-Product Remediation Strategy**	RMT	Documents the December 2001 free product test pit installation and investigation to identify data gaps and determine a more effected means of free product recovery. Outlines the conceptual approach to excavate the free product footprint, manage associated wastes, and backfill the site.
March-02	**Nature and Extent of Lead in Soils and Groundwater [Vol(s) 1 and 2]**	RMT	Documents the November 2001 subsurface lead investigation to define the vertical and horizontal extent on lead soils exhibiting concentrations > 600 ppm. Also included SPLP and groundwater sampling to determine if the lead was leachable and impacting shallow groundwater.
April-02	**Quarterly Monitoring Report 1Q02**	RMT	Presents results of EFR and groundwater monitoring activities.
July-02	**Quarterly Monitoring Report 2Q02**	RMT	Presents results of EFR and groundwater monitoring activities. This repot also included the results of the MW19/Hot Spot 1 and surface water sampling (drainage ditch) performed at the request of the NJDEP following their review of the 1st quarter 2002 monitoring activities [Ref. NJDEP letter dated May 31, 2002].
October-02	**Quarterly Monitoring Report 3Q02**	RMT	Presents results of EFR and groundwater monitoring activities.
January-03	**Quarterly Monitoring Report 4Q02**	RMT	Presents results of EFR and groundwater monitoring activities.
February-03	**Focused Feasibility Study Lead-Impacted Soil Remediation**	RMT	Report presents the justification to change the current ROD remedy for lead impacted soils form excavation and off-site disposal to excavation and beneficial reuse and fill material above the highest shallow groundwater elevation.
March-03	**Evaluation of Potential Impact of Abandoned Mines on the Remediation of Free Product Saturated Soils - PolyOne Corporation L.E. Carpenter, Wharton, New Jersey**	RMT	Evaluation and consultation with Dept of Labor on historical mining activities and mines in relation to the LEC site. Evaluation performed to evaluate impact to proposed source reduction excavation. Incline shafts were deep enough to not impact source reduction dig.
April-03	**Quarterly Monitoring Report 1Q03**	RMT	Presents results of EFR and groundwater monitoring activities.
July-03	**Quarterly Monitoring Report 2Q03**	RMT	Presents results of EFR and groundwater monitoring activities.
October-04	**Quarterly Monitoring Report 3Q03**	RMT	Presents results of EFR and groundwater monitoring activities.
January-04	**Quarterly Monitoring Report 4Q03**	RMT	Presents results of EFR and groundwater monitoring activities.
February-04	**Workplan to Perform a Pilot Excavation**	RMT	Outlined a pilot excavation approach, and data needs and objectives to finalize RAWP preparation for the source reduction remedial strategy
April-04	**Quarterly Monitoring Report 1Q04**	RMT	Presents results of EFR and groundwater monitoring activities.
April-04	**Letter Report Documenting the Potential for the Proposed Remediation at LEC to Affect Historic Properties**	Gray & Pape	Cultural resource and SHPO issues as part of RAWP pre-construciton permitting
April-04	**Remedial Action Work Plan for Source Reduction USEPA ID No. NJD002168748**	RMT	Outlines the design and implementation of the source reduction remedial strategy.
September-04	**Quarterly Monitoring Report 2Q04**	RMT	Presents results of EFR and groundwater monitoring activities.

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October-04	**Freshwater Wetlands GP-4 Permit Application**	JFNew	Excavation of impacted soils in the wetland, RAWP preconstruction permit
October-04	**Stream Encroachment Permit Application**	JFNew	Excavation in 100-yr floodplain. RAWP preconstruction permit
October-04	**Freshwater Wetlands Mitigation Plan**	JFNew	Post Remedial wetland restoration plan. RAWP preconstruction permit
November-04	**Stream Encroachment and Freshwater Wetlands Pemit Completeness Review**	RMT	Response to LURP Deficiencies No. 1
November-04	**Soil Erosion and Sediment Control Plan [SESCP]**	RMT	Erosion permiting requirement for RAWP preconstruction
November-04	**Quarterly Monitoring Report 3Q04**	RMT	Presents results of EFR and groundwater monitoring activities.
December-04	**Response to Conditional Certification of the SESCP**	RMT	MCSCD conditional certification response document
January-05	**Pre-Construction Boring Report**	RMT	Documented the vertical definintion of the smear zone prior to source reduction implementation. Divided source are into 17 sections with varying thickness elevations. Defined lateral extent of PCBs in wharton enterprise soil above residential criteria of 0.49 ppm.
January-05	**2005 Monitored Natural Attenuation [Monitoring Program Revision 2].**	RMT	Sampling MW19HS1 area wells only as all other wells on hold during source reduction.
February-05	**Response to Deficiency Letter for Application for Stream Encroachment Permit and GP-4 Permit**	RMT	Response to LURP Deficiencies No. 2
April-05	**Quarterly Monitoring Report 1Q05**	RMT	Presents results groundwater monitoring activities.
July-05	**Quarterly Monitoring Report 2Q05**	RMT	Presents results groundwater monitoring activities.
August-05	**Wetland Mitigation Construction Report**	JFNew	Documented wetland restoration in accordance with the mitigation plan. RAWP preconstruction permit requirement.
October-05	**Quarterly Monitoring Report 3Q05**	RMT	Presents results groundwater monitoring activities.
October-05	**Post Remedial Monitoring Plan**	RMT	RAWP preconstruction permit requirement. Design and installation of a post source reduction groundwater and surface water monitoring network and associated sample QAQC requirements.
November-05	**Remedial Action Report Source Reduction**	RMT	Construction documentation report of the source reduction remedial project (Jan to June 2005).
December-05	**2005 Mitigation Monitoring Report**	JFNew	1st of 5 Annual Reports [GP-4 permit requirement] evaluating restoration success.
February-06	**Quarter Monitoring Report 4Q05**	RMT	Presents results groundwater monitoring activities.
May-06	**Soil Gas Investigation in the MW19/Hot Spot 1 Area**	RMT	Per New NJDEP Vapor Intrusion Guidelines. Soil Gas Investigation in the MW19/Hot Spot 1 area.
May-06	**Quarterly Monitoring Report 1Q06**	RMT	Presents results groundwater monitoring activities.
August-06	**Application for Freshwater Wetland Statewide General Permit No. 14 [GP-14] - Water Monitoring Devices**	RMT	GP-14 to Install the 5 wetland wells [MW-32s through MW-35S] within a wetland area
August-06	**Quarterly Monitoring Report 2Q06**	RMT	Presents results groundwater monitoring activities.
November-06	**Quarterly Monitoring Report 3Q06**	RMT	Presents results groundwater monitoring activities.
January-07	**2006 Mitigation Monitoring Report**	JFNew	2nd of 5 Annual Reports [GP-4 permit requirement] evaluating restoration success.
February-07	**Remedial Action Progress Report 4Q06**	RMT	Presents results groundwater monitoring activities.
March-07	**Minor Modification to Stream Encroachment Permit No. 1439-04-0001.1 FHA 040001 SEP**	RMT	mmSEP to Install the 5 wetland wells [MW-32s through MW-35S] within the 100-yr floodplain
May-07	**Remedial Action Progress Report 1Q07**	RMT	Presents results groundwater monitoring activities for 1Q07
July-07	**Remedial Action Progress Report 2Q07**	RMT	Presents results groundwater monitoring activities for 2Q07
September-07	**Remedial Action Selection Report [RASR] MW19/HS1 Area**	RMT	Memorialize completion of additional remedial investigation (RI) of the MW19/Hot Spot 1 (MW19/HS1) Area of Environmental Concern (AOC), and the development of preliminary remedial actions to reduce or eliminate the potential risks associated with existing subsurface contamination
September-07	**Remedial Action Progress Report 3Q07**	RMT	Presents results of site monitoring activities for 3Q07
January-08	**Remedial Action Progress Report 4Q07**	RMT	Presents results of site monitoring activities for 4Q07
May-08	**Remedial Action Progress Report 1Q08**	RMT	Presents results of site monitoring activities for 1Q08
August-08	**Remedial Design (RD) Report Addendum No. 1**	RMT	Presents the proposed additional investigation and pilot testing within the source area remediated in 2005 (formerly called the MW-30 Area Remedial Investigation Workplan)
August-08	**Remedial Action Progress Report 2Q08**	RMT	Presents results of site monitoring activities for 2Q08
November-08	**Remedial Action Progress Report 3Q08**	RMT	Presents results of site monitoring activities for 3Q08
November-08	**Remedial Design (RD) Report Addendum No. 2**	RMT	Presents the proposed additional investigation within the MW-19/HS1 area to enhance MNA post building demo (formerly called the MW19/HS1 Remedial Investigation Workplan)
January-09	**Remedial Action Progress Report 4Q08**	RMT	Presents results of site monitoring activities for 4Q08
April-09	**Quarterly Monitoring Report 1Q09**	RMT	Presents results of site monitoring activities for 1Q09
July-09	**Quarterly Monitoring Report 2Q09**	RMT	Presents results of site monitoring activities for 2Q09

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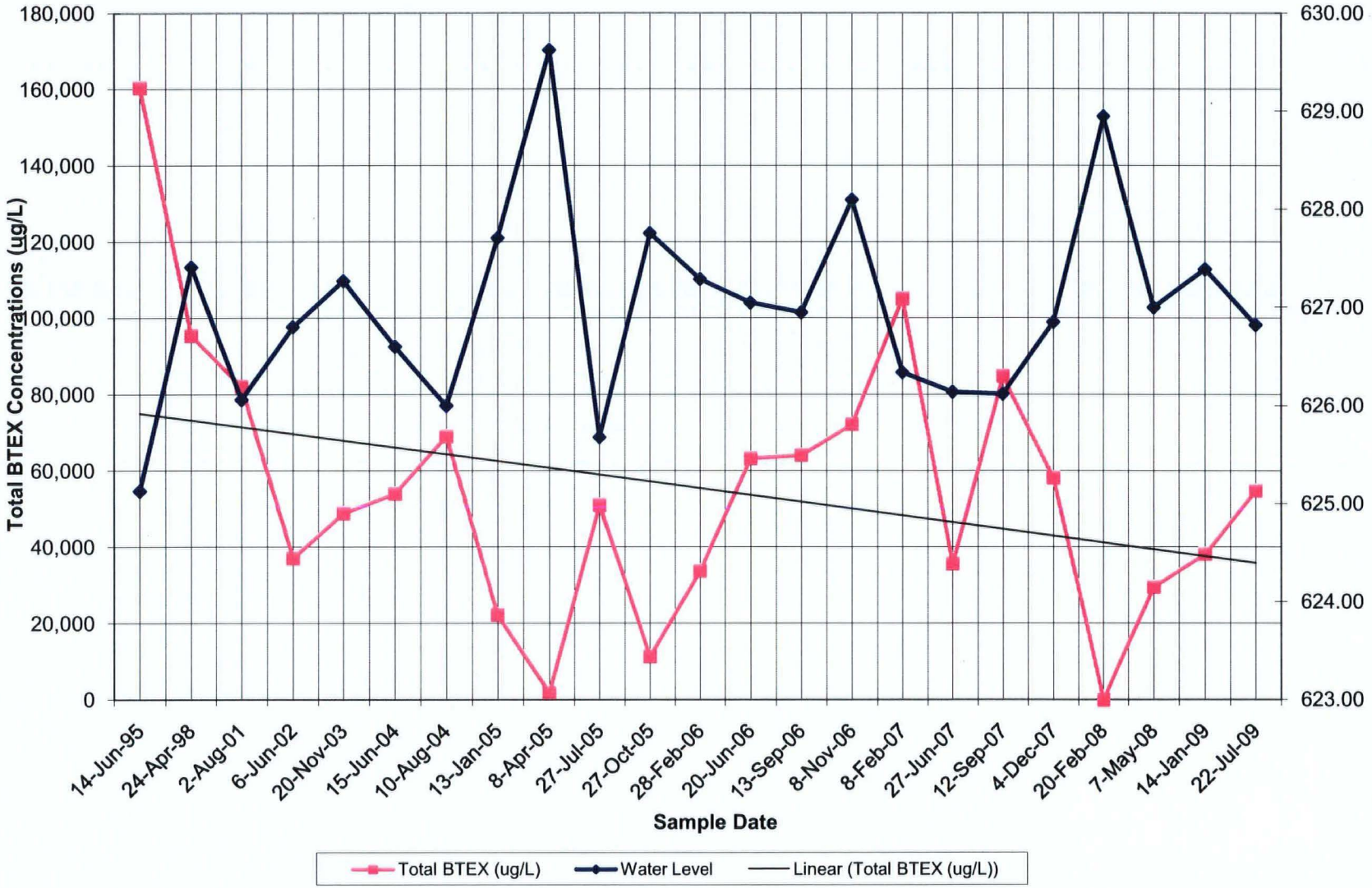
August-09	**USEPA & LEC Agreement**	USEPA	Packet containing the effective/final UAO, UAO Addendum No. 1, SOW, ESD, ROD
August-09	**Quality Management Plan (QMP) for RMT, Inc.**	RMT	Documents and describes the quality management philosophy and systems of RMT, Inc.
September-09	**Addendum to the Remedial Action Work Plan for Source Reduction**	RMT	Presents: 1. the proposed scope of work to implement the 1994 ROD approved soil remedy at the MW19HS1 residual source area, and 2. the proposed additional investigation and pilot testing within the MW-30 area, including responses to both USEPA and NJDEP comments on the proposed MW-30 area scope of work.

Appendix C
MW19HS1 Area BTEX Trend Charts

Total BTEX Concentrations vs. Water Levels for MW-19



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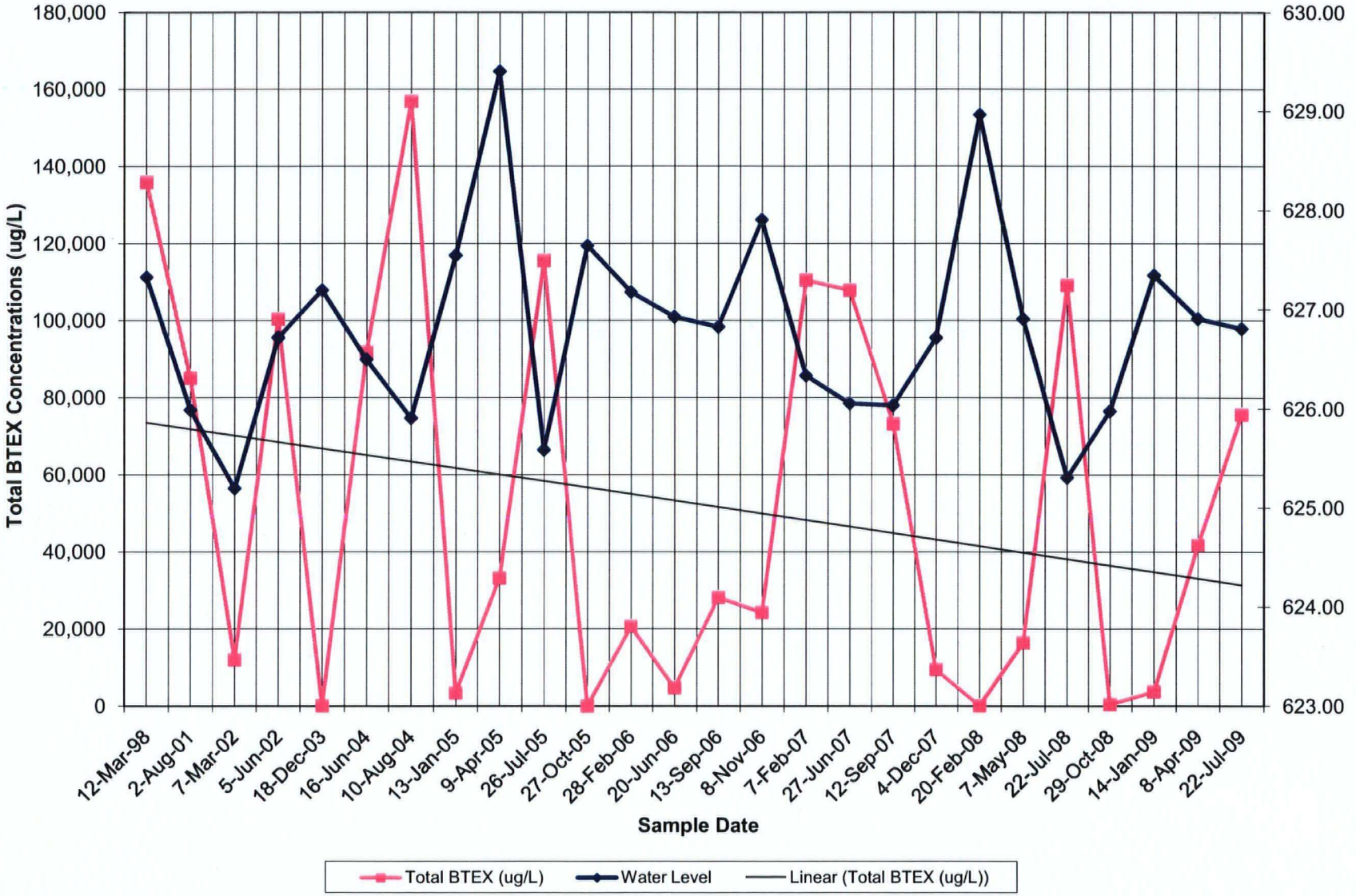
Total BTEX Concentrations vs. Water Levels for MW-19-5



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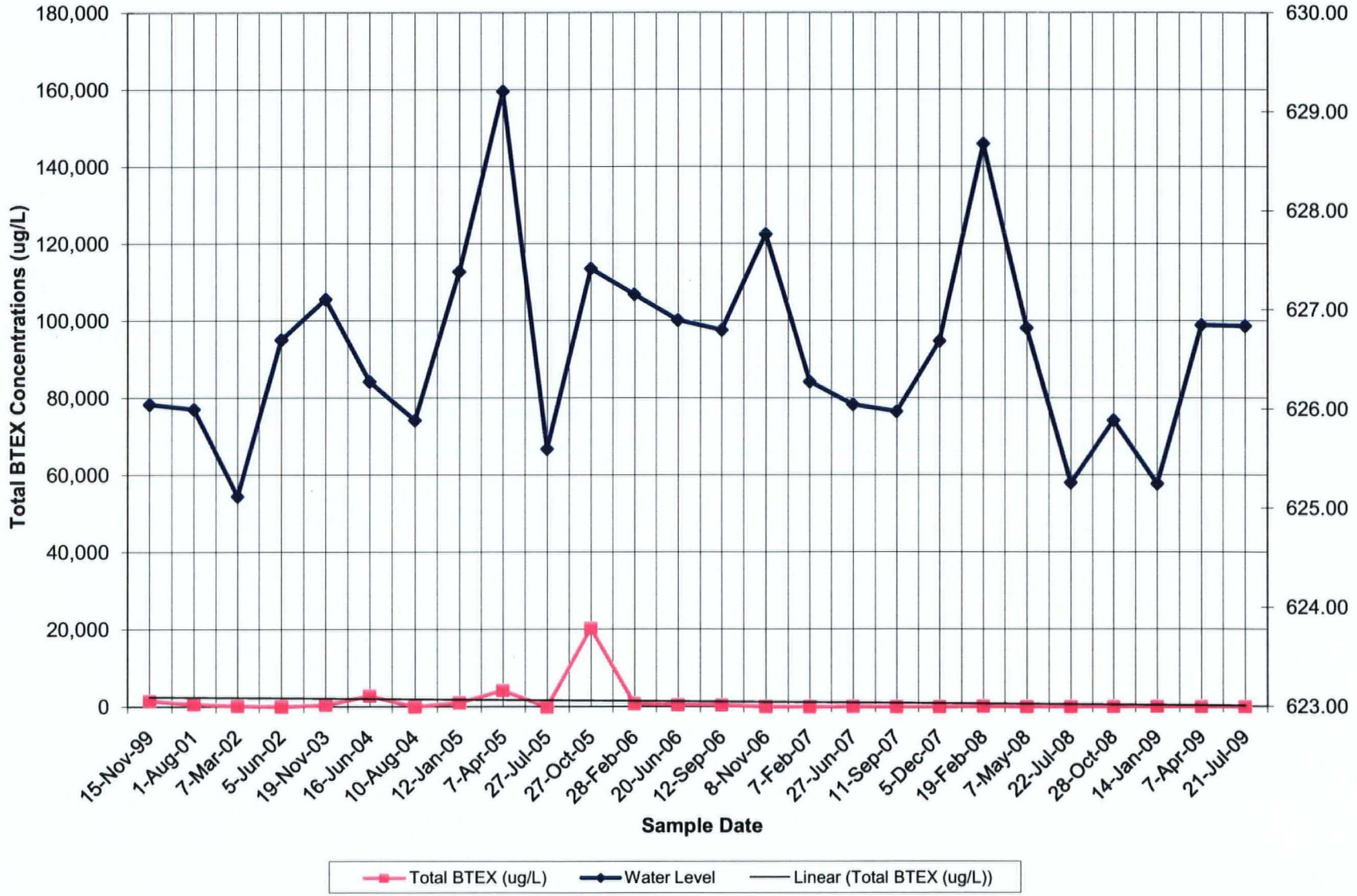
Total BTEX Concentrations vs. Water Levels for MW-19-7



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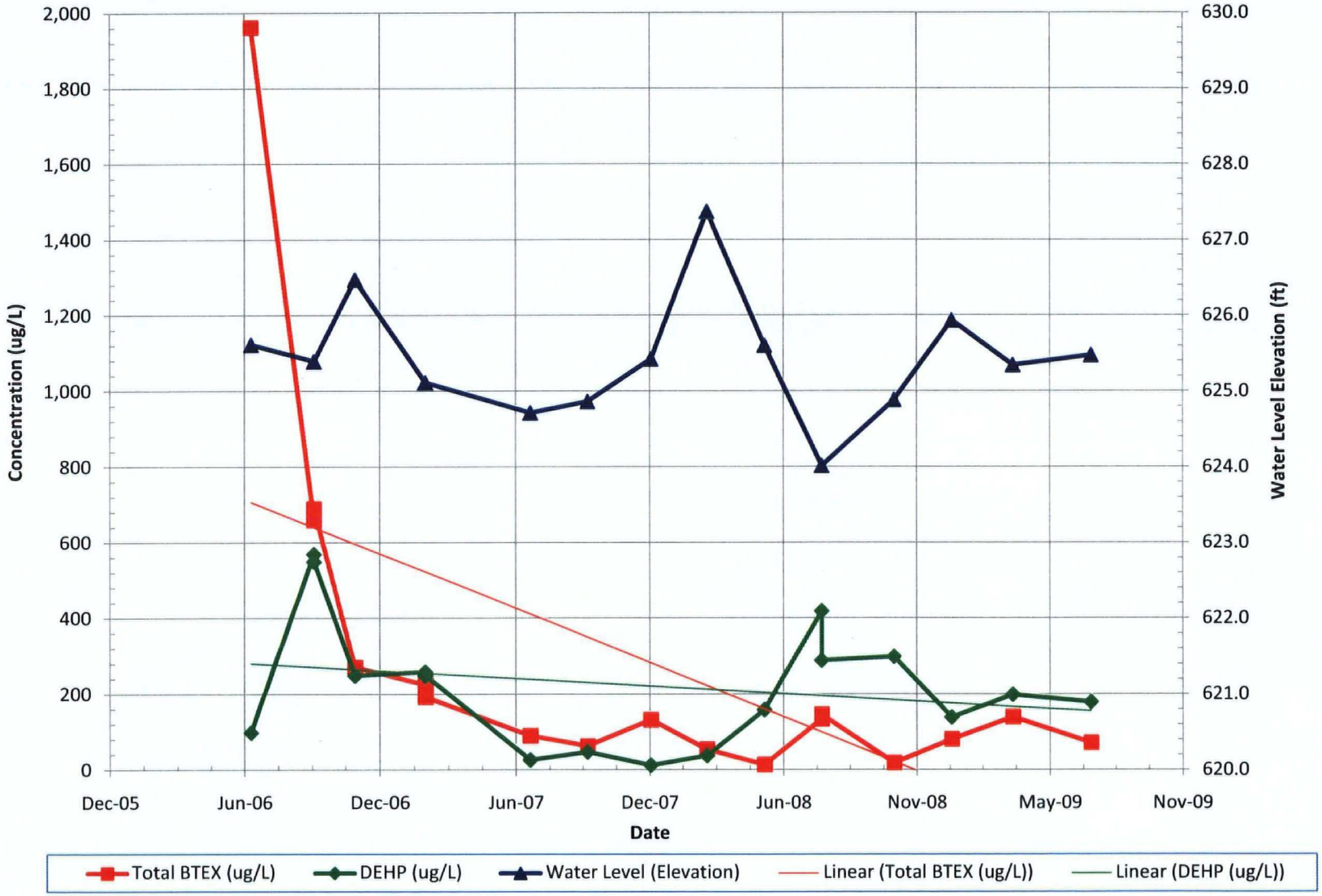
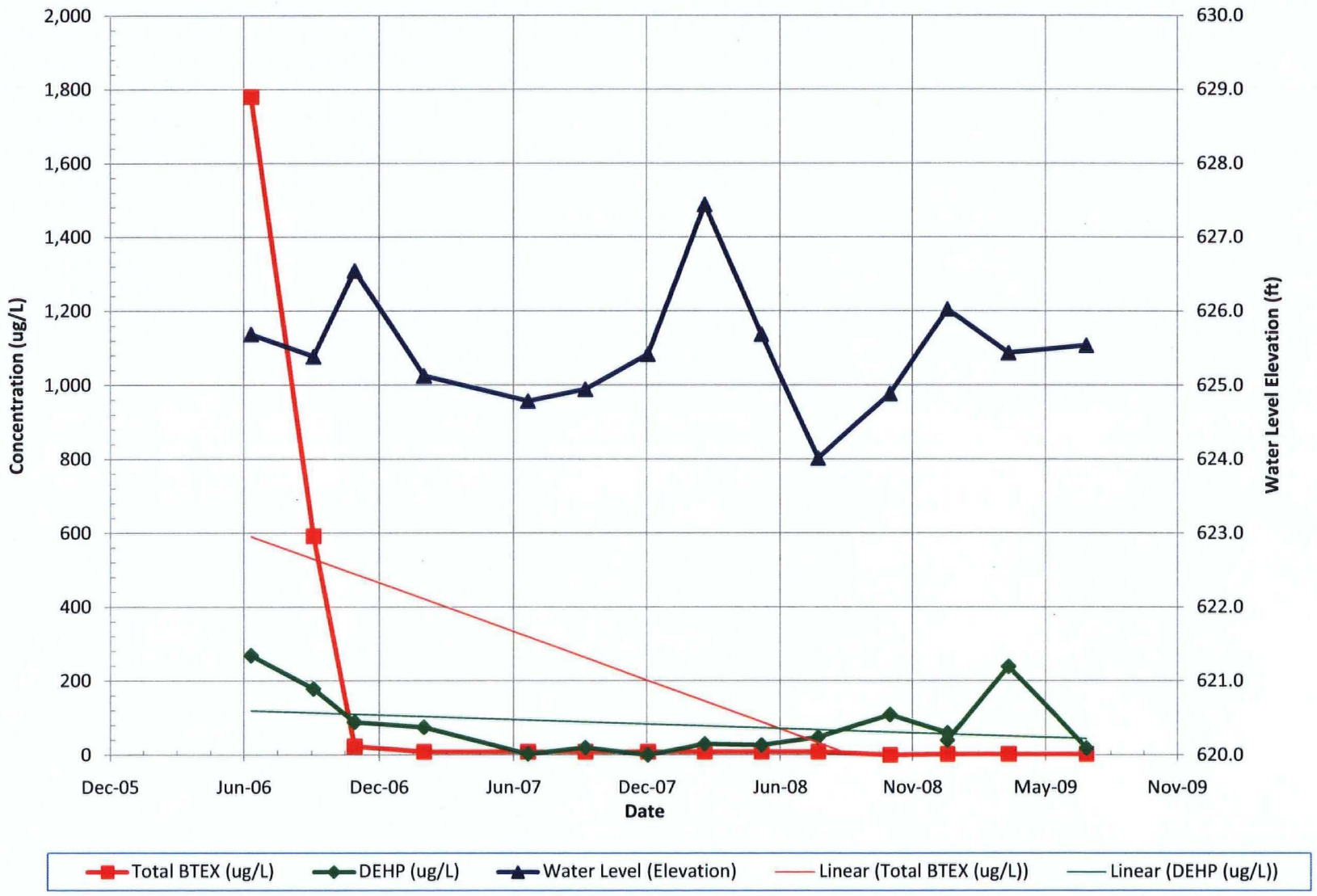
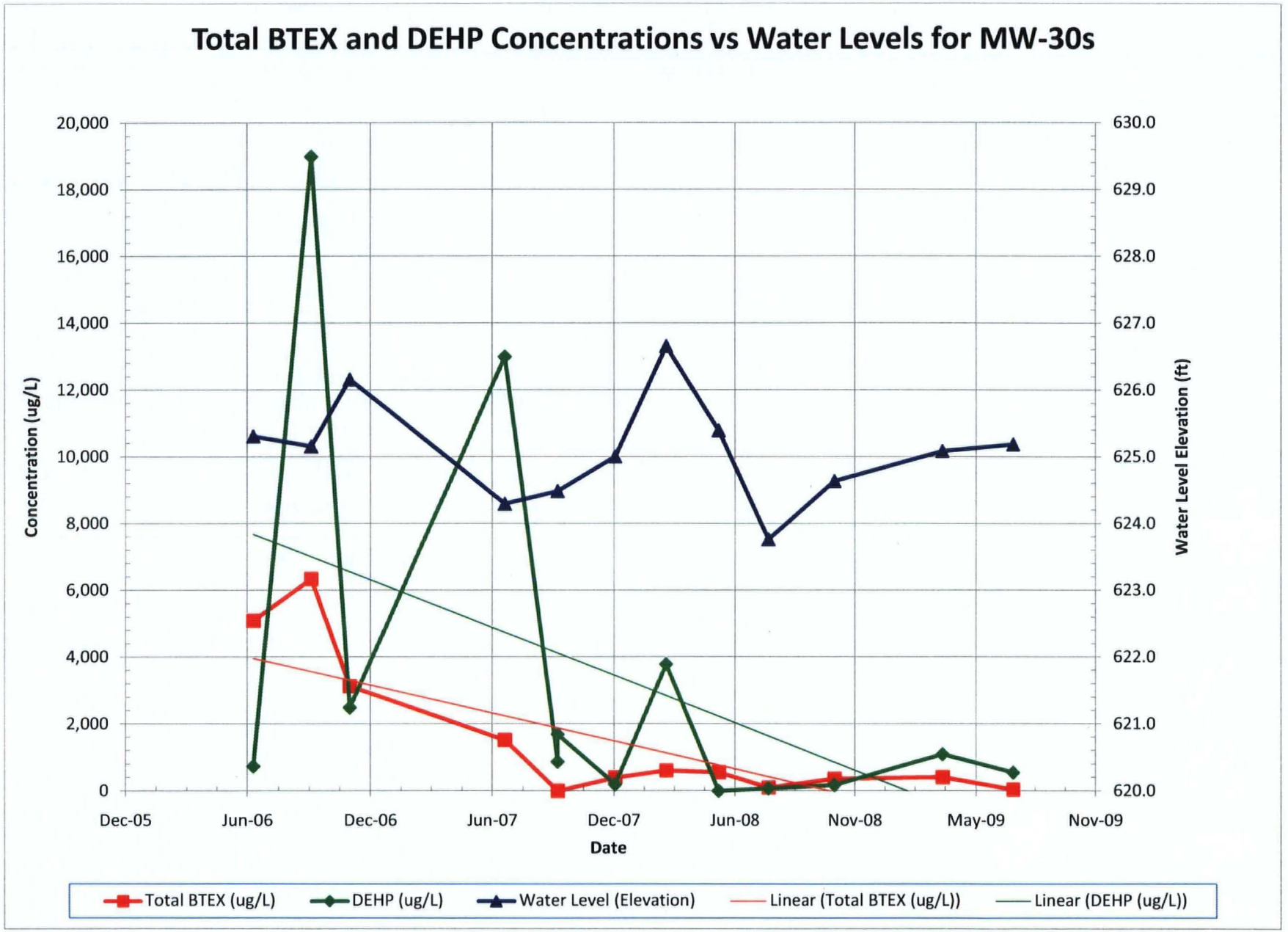
Appendix D
MW-30 Area BTEX Trend Charts

Total BTEX and DEHP Concentrations vs. Water Levels for MW-28s

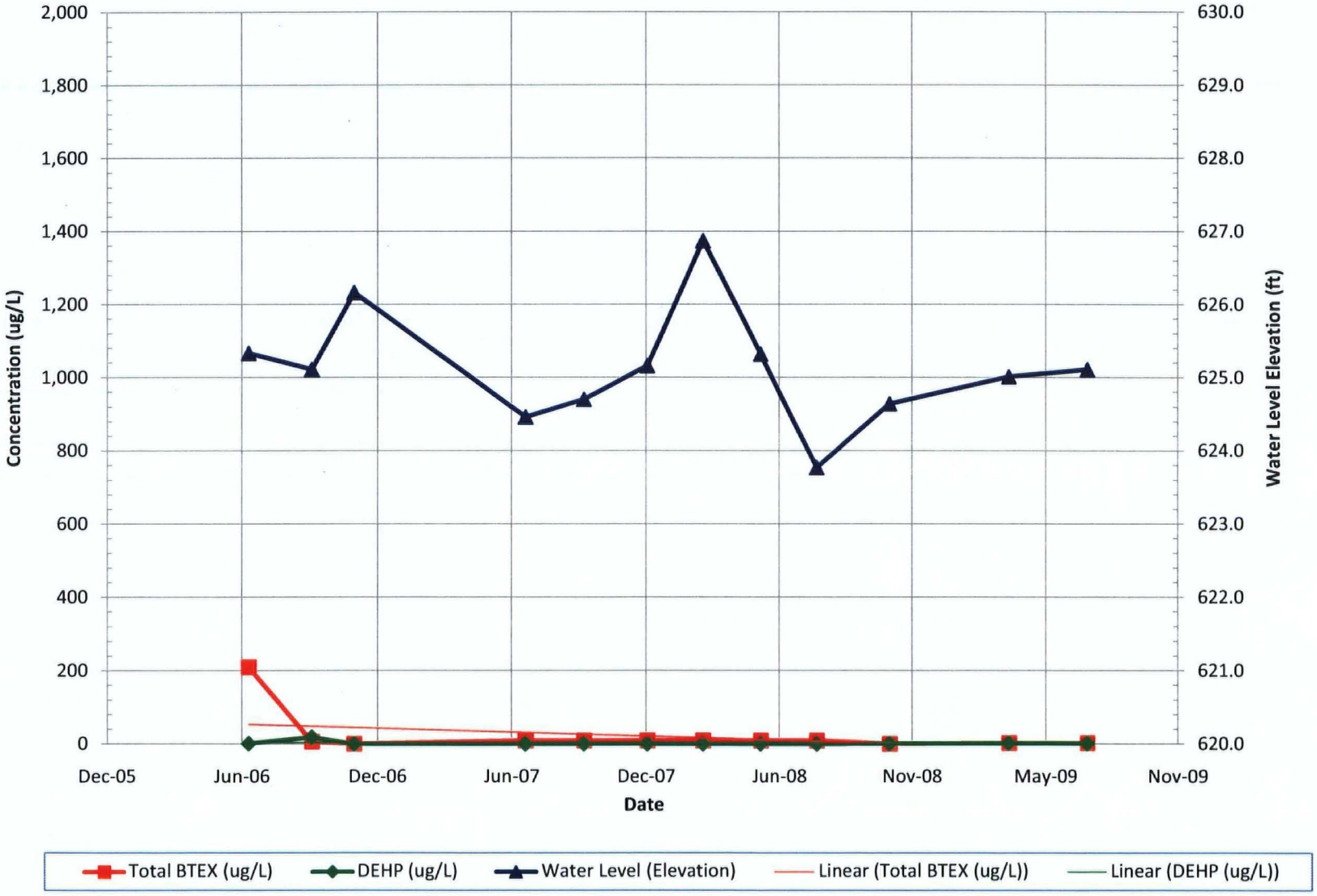


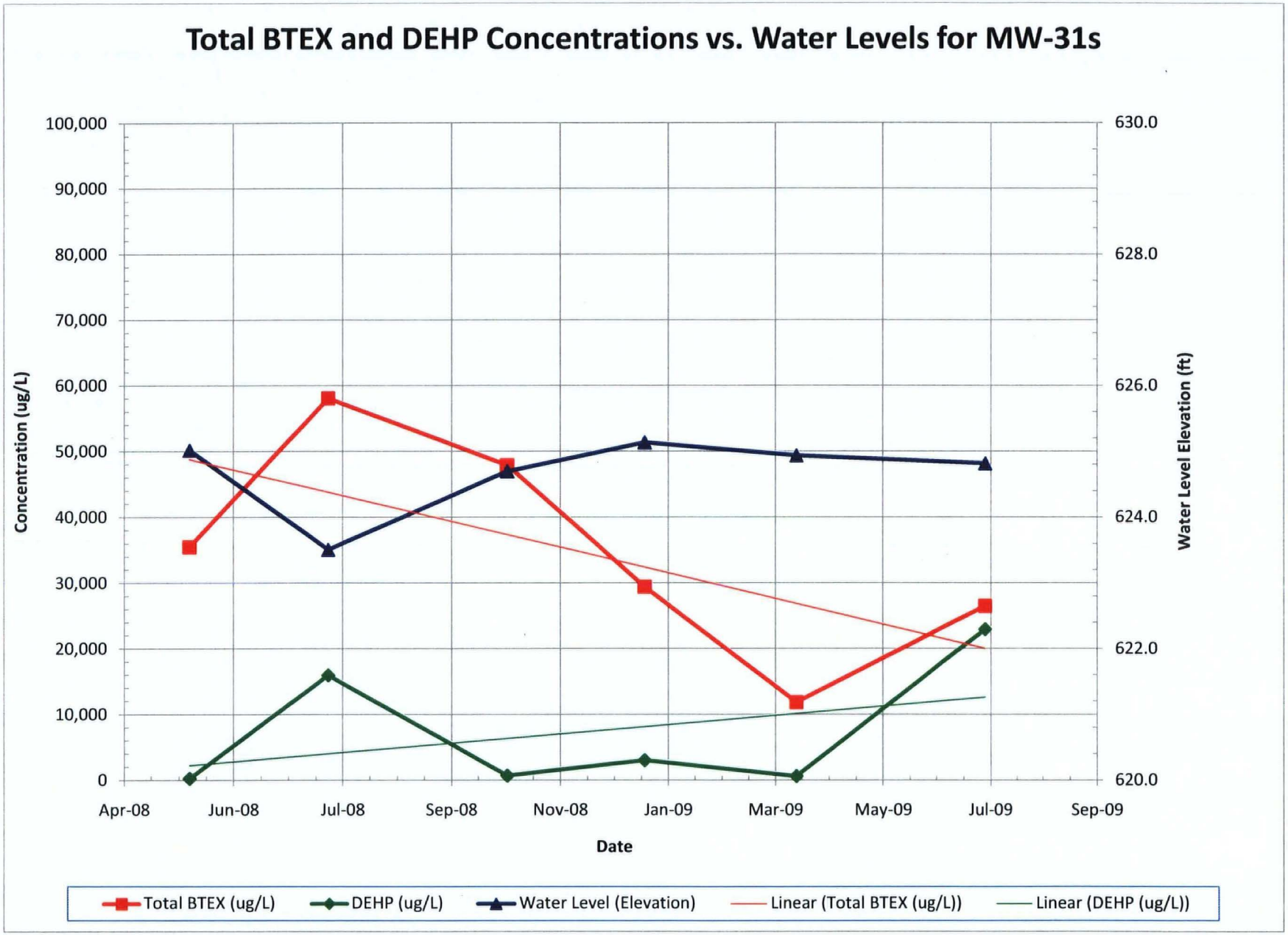
Total BTEX and DEHP Concentrations vs. Water Levels for MW-28i

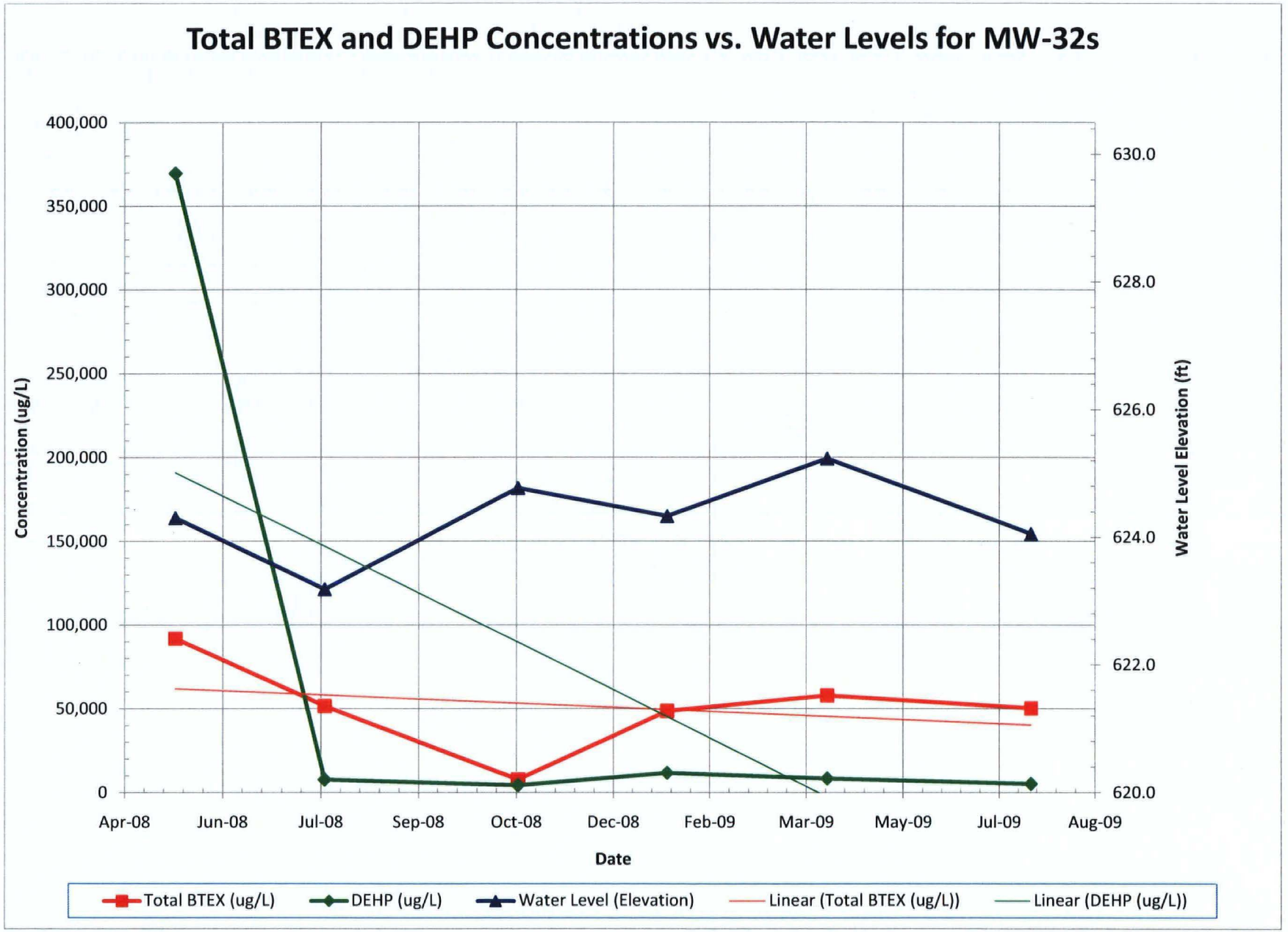


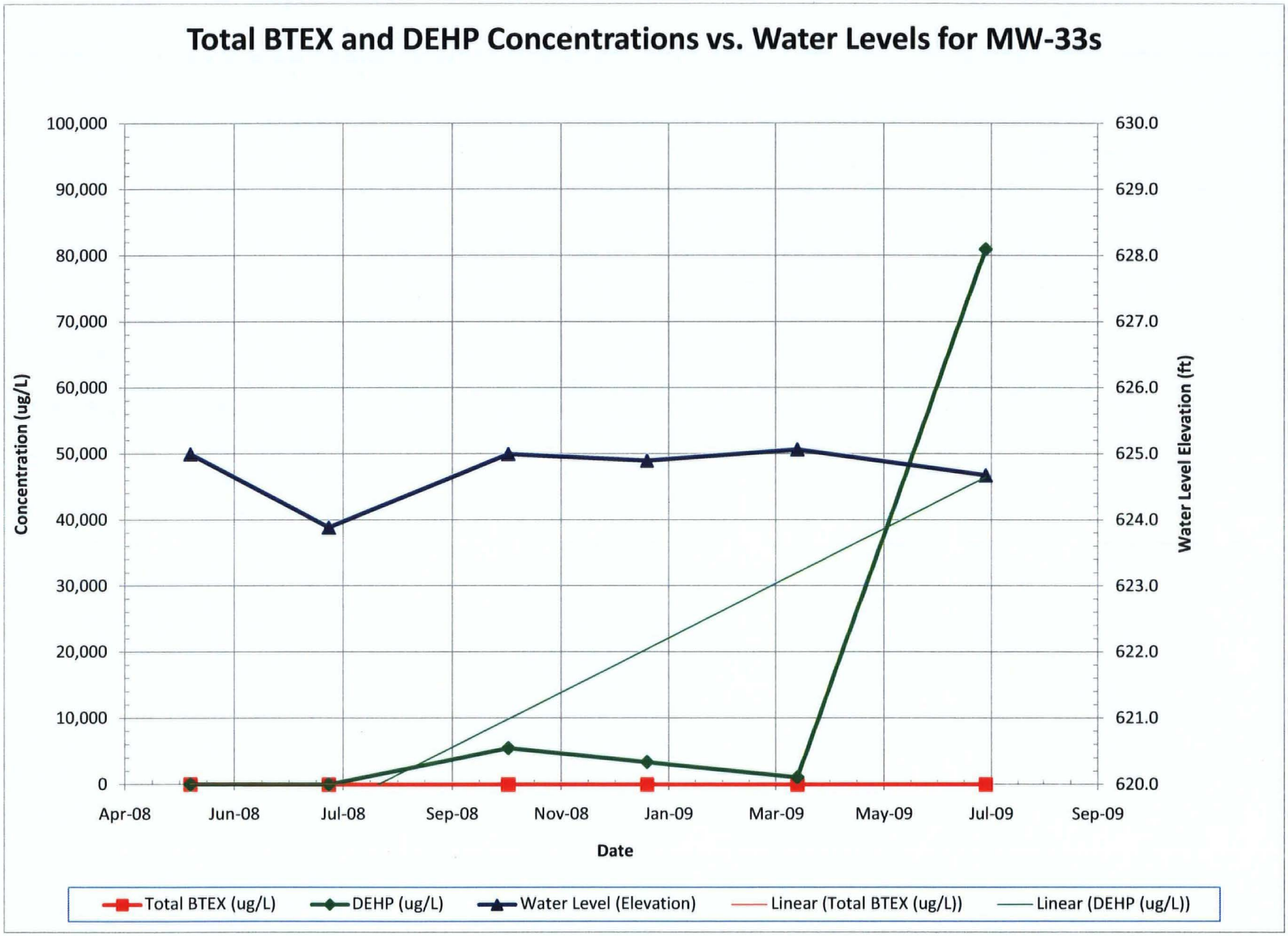

Total BTEX and DEHP Concentrations vs Water Levels for MW-30s
Concentration (ug/L)
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Water Level Elevation (ft)
630.0
629.0
628.0
627.0
626.0
625.0
624.0
623.0
622.0
621.0
620.0
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Nov-08
May-09
Nov-09
Date
Total BTEX (ug/L)
DEHP (ug/L)
Water Level (Elevation)
Linear (Total BTEX (ug/L))
Linear (DEHP (ug/L))

Total BTEX and DEHP Concentrations vs. Water Levels for MW-30i

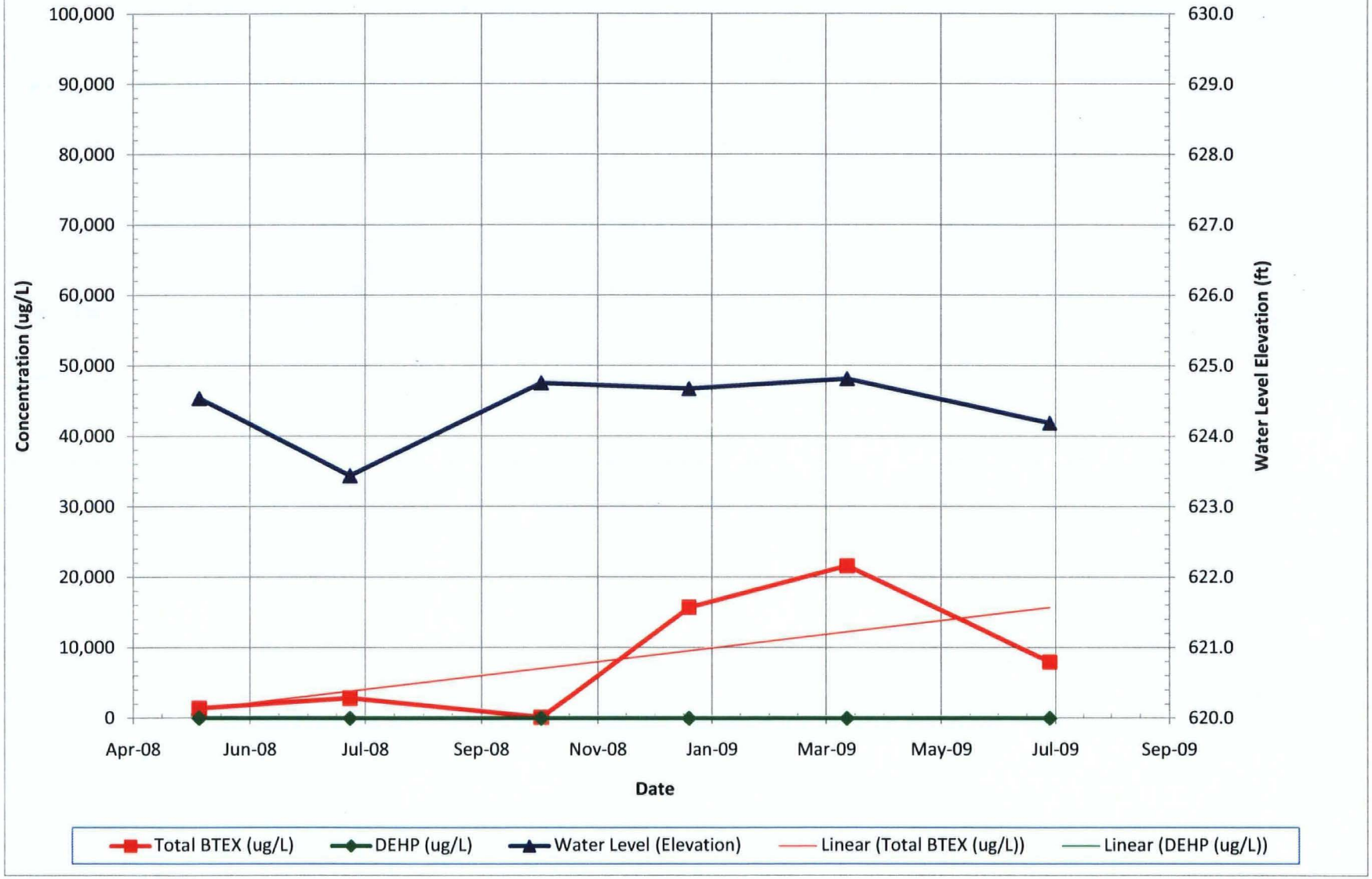


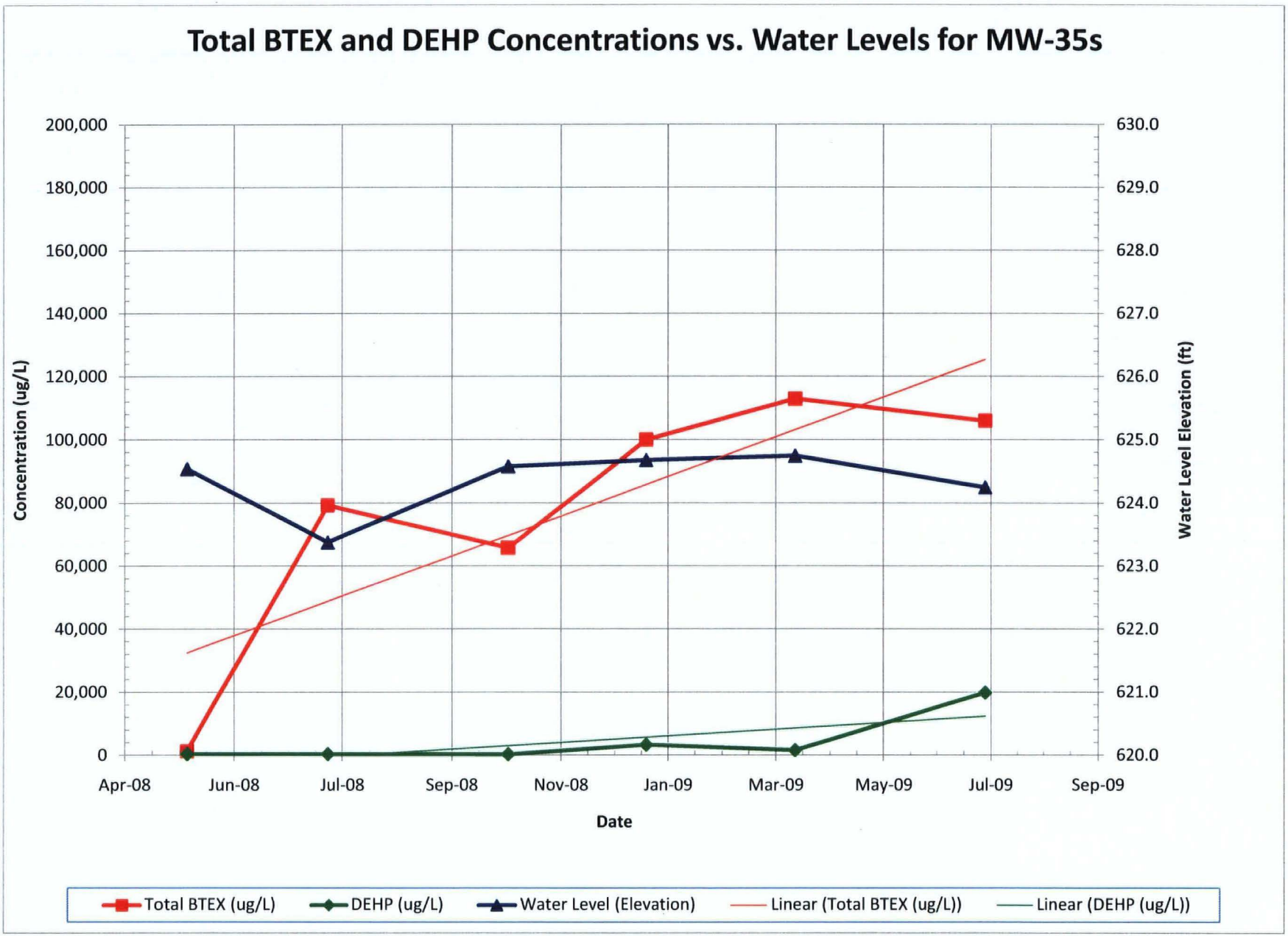

Total BTEX and DEHP Concentrations vs. Water Levels for MW-31s
Concentration (ug/L)
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
630.0
628.0
626.0
624.0
622.0
620.0
Water Level Elevation (ft)
Apr-08
Jun-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Date
Total BTEX (ug/L)
DEHP (ug/L)
Water Level (Elevation)
Linear (Total BTEX (ug/L))
Linear (DEHP (ug/L))


Total BTEX and DEHP Concentrations vs. Water Levels for MW-32s
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Concentration (ug/L)
630.0
628.0
626.0
624.0
622.0
620.0
Water Level Elevation (ft)
Apr-08
Jun-08
Jul-08
Sep-08
Oct-08
Dec-08
Feb-09
Mar-09
May-09
Jul-09
Aug-09
Date
Total BTEX (ug/L)
DEHP (ug/L)
Water Level (Elevation)
Linear (Total BTEX (ug/L))
Linear (DEHP (ug/L))


Total BTEX and DEHP Concentrations vs. Water Levels for MW-33s
Concentration (ug/L)
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Water Level Elevation (ft)
630.0
629.0
628.0
627.0
626.0
625.0
624.0
623.0
622.0
621.0
620.0
Apr-08
Jun-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Date
Total BTEX (ug/L)
DEHP (ug/L)
Water Level (Elevation)
Linear (Total BTEX (ug/L))
Linear (DEHP (ug/L))

Total BTEX and DEHP Concentrations vs. Water Levels for MW-34s




Total BTEX and DEHP Concentrations vs. Water Levels for MW-35s
Concentration (ug/L)
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Water Level Elevation (ft)
630.0
629.0
628.0
627.0
626.0
625.0
624.0
623.0
622.0
621.0
620.0
Apr-08
Jun-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Date
Total BTEX (ug/L)
DEHP (ug/L)
Water Level (Elevation)
Linear (Total BTEX (ug/L))
Linear (DEHP (ug/L))

Appendix E
Site Inspection Photolog

RMT

Photographic Log

Client Name:	Site Location:	Project No.:
Dayco Corporation/L.E. Carpenter & Co. Superfund Site	Wharton, New Jersey	6527.35

Photo No.	Date
1	7/23/09

Description
Standing near the equipment shed looking west across site.

Photo No.	Date
2	7/23/09

Description
Standing near MW-29s (shown in foreground) looking southeast toward MW-30d, MW-30i, MW-30s.

RMT

Photographic Log

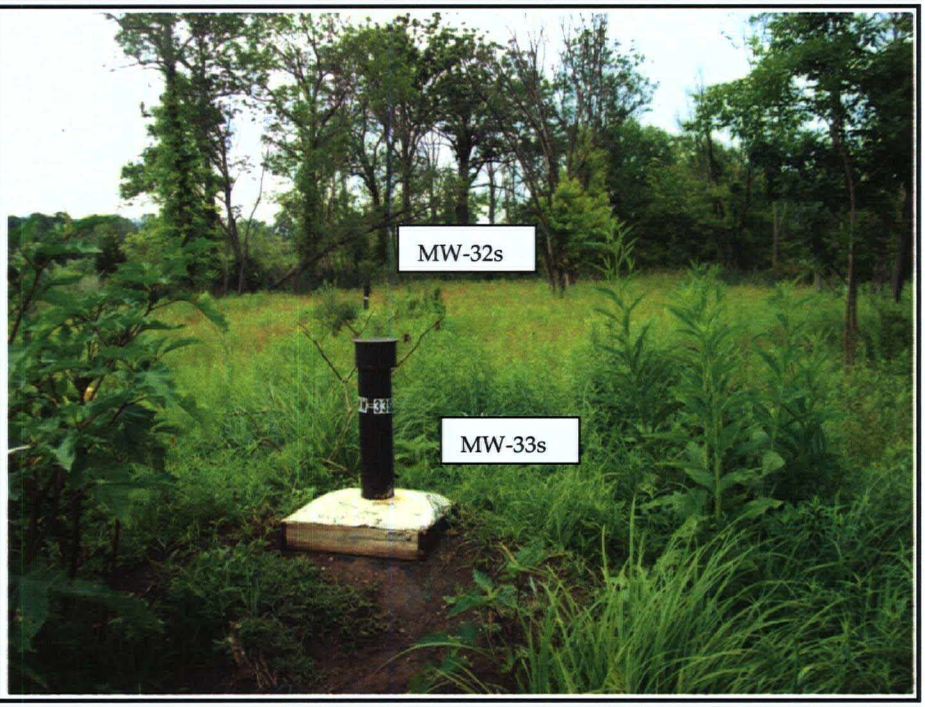
Client Name:	Site Location:	Project No.:
Dayco Corporation/L.E. Carpenter & Co. Superfund Site	Wharton, New Jersey	6527.35

Photo No.	Date
3	7/23/09

Description
Standing near MW-33s looking west across site towards Monitoring wells MW-28s & i. Monitoring wells can not be seen in photograph due to high vegetation.

Photo No.	Date
4	7/23/09

Description
Standing just inside of wetland area looking east into wetland area. Monitoring wells MW-33s and MW-32s are shown in the picture.



RMT

Photographic Log

Client Name:	Site Location:	Project No.:
Dayco Corporation/L.E. Carpenter & Co. Superfund Site	Wharton, New Jersey	6527.35

Photo No.	Date
5	7/23/09

Description
Standing just outside of wetland area looking NE into wetland area. Monitoring wells MW-31s is shown in the picture.

Photo No.	Date
6	7/23/09

Description
Standing South of SW-D-4 looking east down the drainage ditch.

RMT

Photographic Log

Client Name:	Site Location:	Project No.:
Dayco Corporation/L.E. Carpenter & Co. Superfund Site	Wharton, New Jersey	6527.35

Photo No.	Date
7	7/23/09

Description
Standing near SW-D-5 (beaver dam) looking North toward the beaver dam and sampling location.

Photo No.	Date
8	7/23/09

Description
Ditch River Confluence (DRC-2). Looking south (downstream) in the ditch toward the Rockaway River.